https://gramaticasytextosdelasgrandesculturas.wordpress.com/2016/07/18/the-maya-vase-book-a-corpus-of-rollout-photographs-of-maya-vases-volumen-i-ii-iii-y-iv/

https://mega.nz/#!tZAEAa5C!mYuXkj9eSALSE7ykgBYySjd3uTeThBqzdS8bIt61rw4

THE MAYA VASE BOOK

A CORPUS OF ROLLOUT PHOTOGRAPHS OF MAYA VASES

BY JUSTIN KERR

WITH ESSAYS BY

NIKOLAI GRUBE
BARBARA MacLEOD
BRIAN STROSS and
JUSTIN KERR

VOLUME 2

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https://mega.nz/#!tZAEAa5C!mYuXkj9eSALSE7ykgBYySjd3uTeThBqzdS8blt61rw4

THE ELECTRONIC EDITION

THE MAYA VASE BOOK

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BY JUSTIN KERR

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JUSTIN KERR

VOLUME 2

EDITED BY BARBARA AND JUSTIN KERR

THE MAYA VASE BOOK, VOLUME 2
A Corpus of Rollout Photographs of Maya Vases

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The electronic edition was composed
in PC Pagemaker and presented in
Adobe Acrobat Format (.PDF)

All drawings in the Corpus by
Barbara Kerr

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USA

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Page 328	THE GOD N / STEP SET IN THE PRIMARY STANDARD SEQUENCE	BARBARA MacLEOD
Page 345	NOTES ON THE MAYA VISION QUEST THROUGH ENEMA	BRIAN STROSS AND JUSTIN KERR

The Electronic Edition carries all of the information of the paper edition with the exception that where there was a color image available, it was used. The numbering of pages has changed. I have also added a few "still" photographs and a rollout of a vase that proves MacLeod's reading of *hoy*.

JK November, 1997

PREFACE

As the poet wrote, the best laid schemes... gang aft a-gley." It was my intention to present the rollouts in the order that they were photographed. The reason for this decision was that I did not wish to group the vases into specific sequences, as most scholars would want to arrange them in pursuit of their own programs.

Since Nickolai Grube has written a paper on the PSS as it appears on Northern Yucatecan vases, I felt it would be a good idea to include in a special section, all the vases from that area that I could find. In 1971, when *The Maya Scribe and His World* by Michael Coe was published, I had not yet built the rollout camera. Now, I have been fortunate to find that some of the vases were available to me and I have taken the opportunity to roll them out.

The American Museum of Natural History, with the assistance of Barbara Conklin allowed me to photograph the magnificent Chocholá vase in their collection. Dr. Gordon Ekholm had shown me the vase many years ago and it was a great pleasure to be able to make a rollout of it The Princeton Art Museum, through the good offices of Gillett Griffin and Alan Rosenbaum, provided me with access to their collection. I am also appreciative of the efforts of private collectors who have opened their collections to me so that I am able to present a number of vases that have never been seen in rollout form.

In the past year there has been a great deal of work done on the further interpretation of the PSS. Papers appearing in a number of publications such as Mexicon and the Maya *Research Reports*, have presented new light on the meaning of this elusive text. In this volume, Barbara MacLeod and Nikolai Grube further elucidate the meaning of the rim text.

It still remains an open question, at least to me, for whom these messages were intended. Grube and MacLeod are interpreting the phrase from the PSS, ta yutal as "food/sustenance." Is the reference to mortal food or godly food? When we realize that many of the vessels we see in the light of this day were once covered with stucco and that the texts were hidden from mortal eyes, does that not give us pause?

I am using the abbreviations PY, CX, CV, IN, MD, and BW in this volume in order to add information about the type of vessel pictured.

These abbreviations are:

PY Polychrome
CX Codex style
CV Carved (Clay or Stone)
IN Incised
MD Molded
BW These are vases with black line on a white background. The rim is painted black. Most of these vases refer to names and titles and family associations. They often have emblem glyphs and minimal decoration. No. 1383 is an example of this type of vase. The Black and White vases are different from the Codex vases, in that the Codex vases are generally black or brown line on a beige background and relate to mythological subjects. I believe that the motifs painted on the BW vases (the so-called fleur-de-lis etc.) are flowers and seeds, which can be associated with regenerative themes.

I have also used abbreviations for the following publications:

MS
The Maya Scribe and His World,
Michael Coe,
The Grolier Society, N.Y.
1972

OG
Old Gods and Young Heroes,
Michael Coe,
The Israel Museum, Jerusalem,
1978

BOD
The Maya Book of the Dead
F. Robiscek and D. Hales
University of Virginia Art Museum, Charlottesville,
1981

BOK
The Blood of Kings,
Linda Schele and Mary E. Miller
Kimbell Art Museum, Fort Worth,
1986

Information about all of the vases has been entered into a computer database.

This information is broken down into both physical and iconographic data. There are 125 different fields or categories that make up the record on each vase. Where there is only a rim text band, that fact is recorded and broken down into whether or not it is a PSS, or whether a TZIB or a U TZIB is present. Some of the categories recorded are the types of vases; (polychrome, codex. incised, or carved), and the scenes represented on the vases; (ballgame, hunt, warfare, cosmos, etc).

The classification of the characters that appear on the vases is also recorded. If one wished to know, for example, the file numbers of vases on which God A or God N appears, or where God D appears in conjunction with the hero twins or other gods, that information can be solicited from the database.

Certain glyphs have also been selected to be part of the record. Hand-holding-fish, T714, and Akbal, T504, are examples of the glyphs included. A dictionary of the database and the database itself is available to anyone who wishes to make use of this information.

The files are in Superbase, and can also be exported in dBase /.DBF format and there are a number of programs that can access those files. If you wish to have a

copy of the database or an update, just send me a formatted IBM or Mac high density floopy disk. This database will be incorporated into the general database that is being formulated by The Pre-Columbian Art Research Institute under the direction of Merle Green Robertson. (The Database will also be available from The Foundation for the Advancement of Mesoamrican Studies, (FAMSI))(added 1998)

My thanks to the authors; Barbara MacLeod, for presenting us with a brilliant work on a complex character, God N; Nikolai Grube, for bringing us a most fascinating study of the writing on a relatively unexplored group of vases; and it was my pleasure to work with Brian Stross, whose inquisitive mind reexamined a strange area of Maya culture. Their papers are always rewarding and filled with new insights.

Again, I wish to thank Barbara Kerr for her patience in dealing with me and the computer. Her design skills and editing have contributed beyond measure to the production of these volumes.

The rules for using the rollout photographs are simple. There is no need for permission to use any of the photographs in a scholarly work or paper or if it is being published in a not-for-profit book, as permission is hereby granted and implicit to any scholar or student. The copyright notice and date, with the file number must accompany the rollout. Rollout photographs may not be used in any commercial or profit-making book or venture, without prior written permission and discussion of fees.

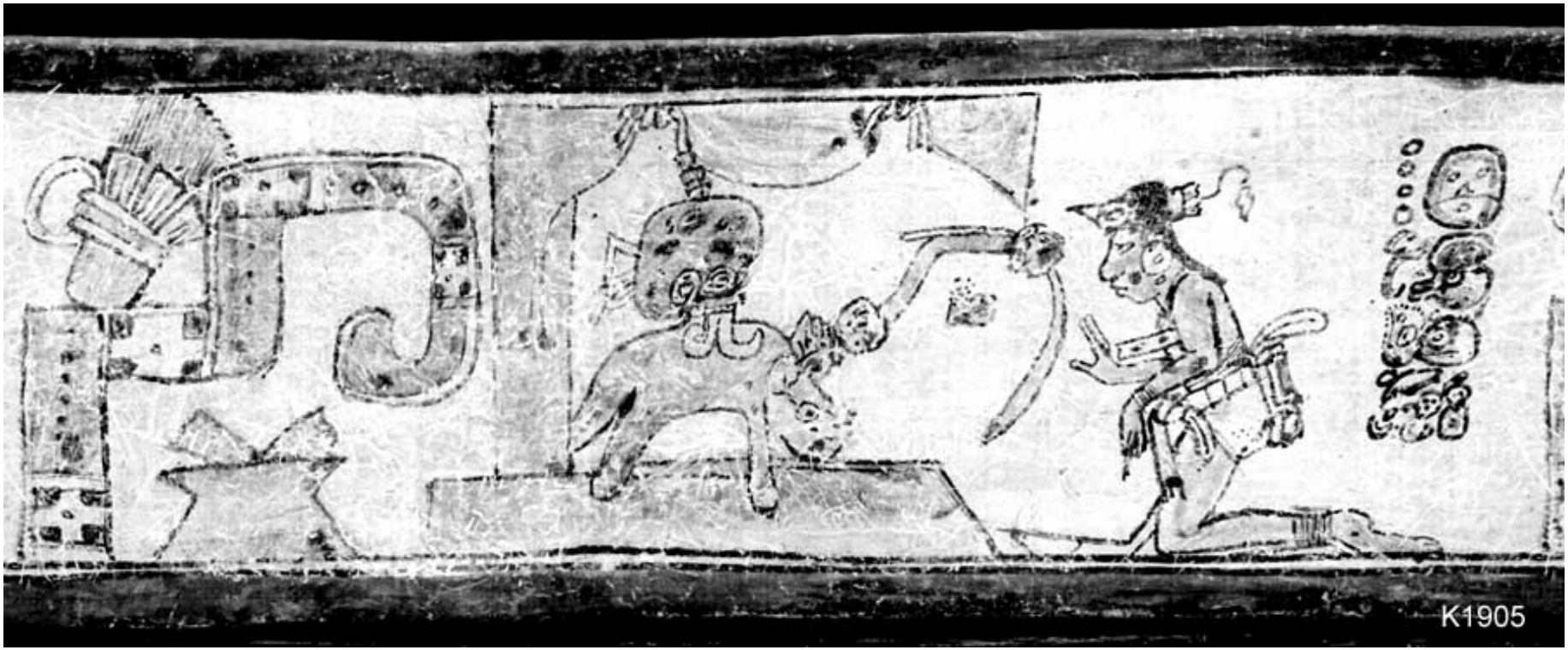
It is gratifying to me that the vases are playing a part in the new understanding of the Maya. May the Lords of Xibalba look kindly on your efforts.

Justin Kerr
New York June,
1990

THE CORPUS

THIS
VOLUME IS
DEDICATED TO
THE MEMORY OF
GORDON EKHOLM
FRIEND AND TEACHER

Return to Contents



© Kerr 1983
Ht. 12.0 Dia. 10.0 Cir. 29.3 cm CX

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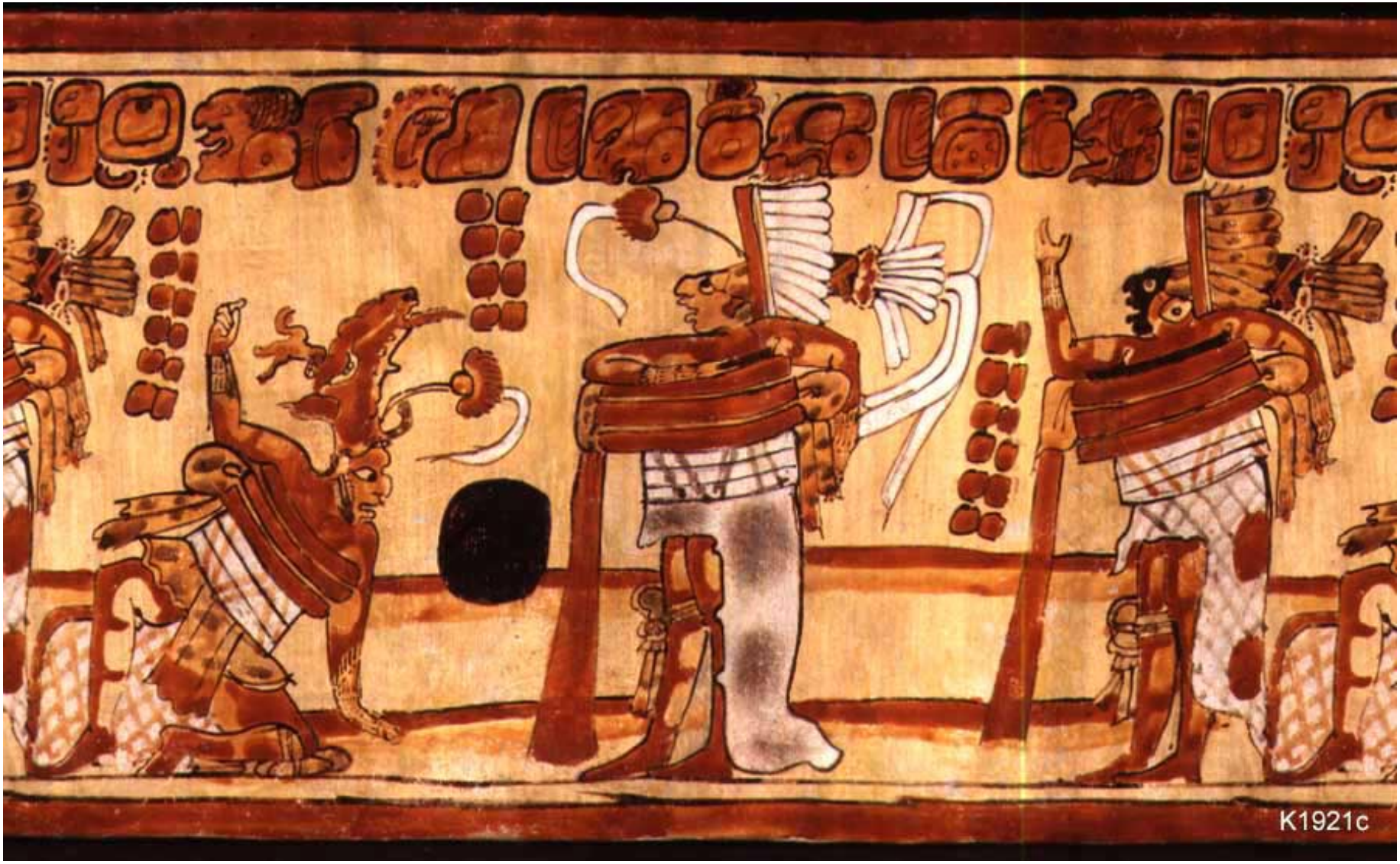

© Kerr 1982
Ht. 24.5 Dia. 12.3 Cir. 38.5 cm PY

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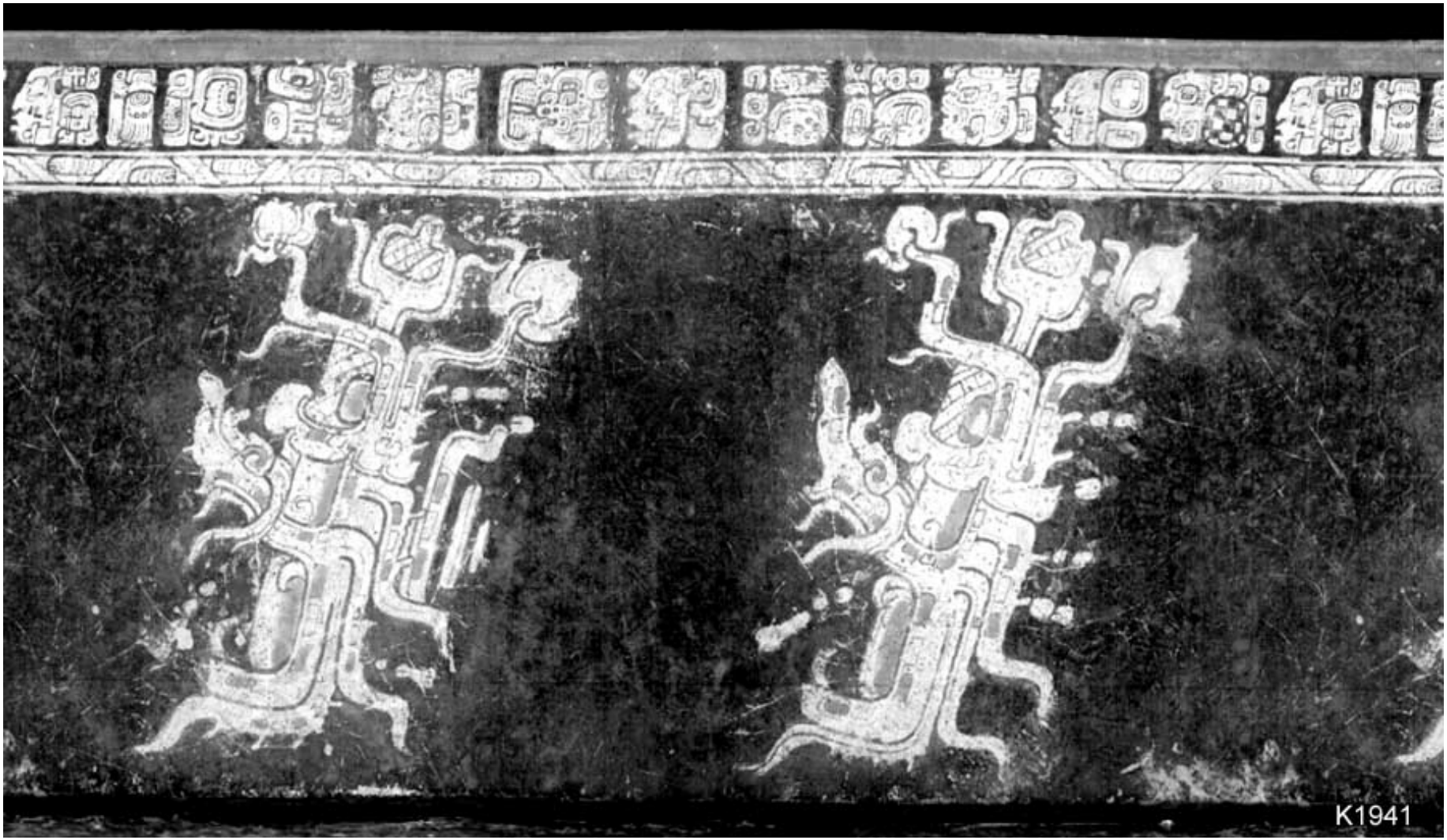


© Kerr 1982
File No. K1941
Ht. 20 Dia. 11.5 Cir. 35.4 cm BW

© Kerr 1982
File No. K1965

Ht. 10 Dia. 5.3 Cir. 17 cm CV

Stone
one of a group of stone vases
found filled with cinnabar

© Kerr 1982
File No. K1973
Ht. 10.5 Dia. 18 Cir. 51.5 cm CM

The Metropolitan Museum of Art

Undeside of bowl

© Kerr 1983
File No. K1977
Ht. 9.8 Dia. 6.5 Cir. 21 cm CV

© Kerr 1983
File No. K1979
Ht. 20 Dia. 13.7 Cir. 43.2 cm CV

© Kerr 1983
Ht. 12 Dia. 11 Cir.36.51 cm CX

File No. K1991

© Kerr 1983

File No. K2010

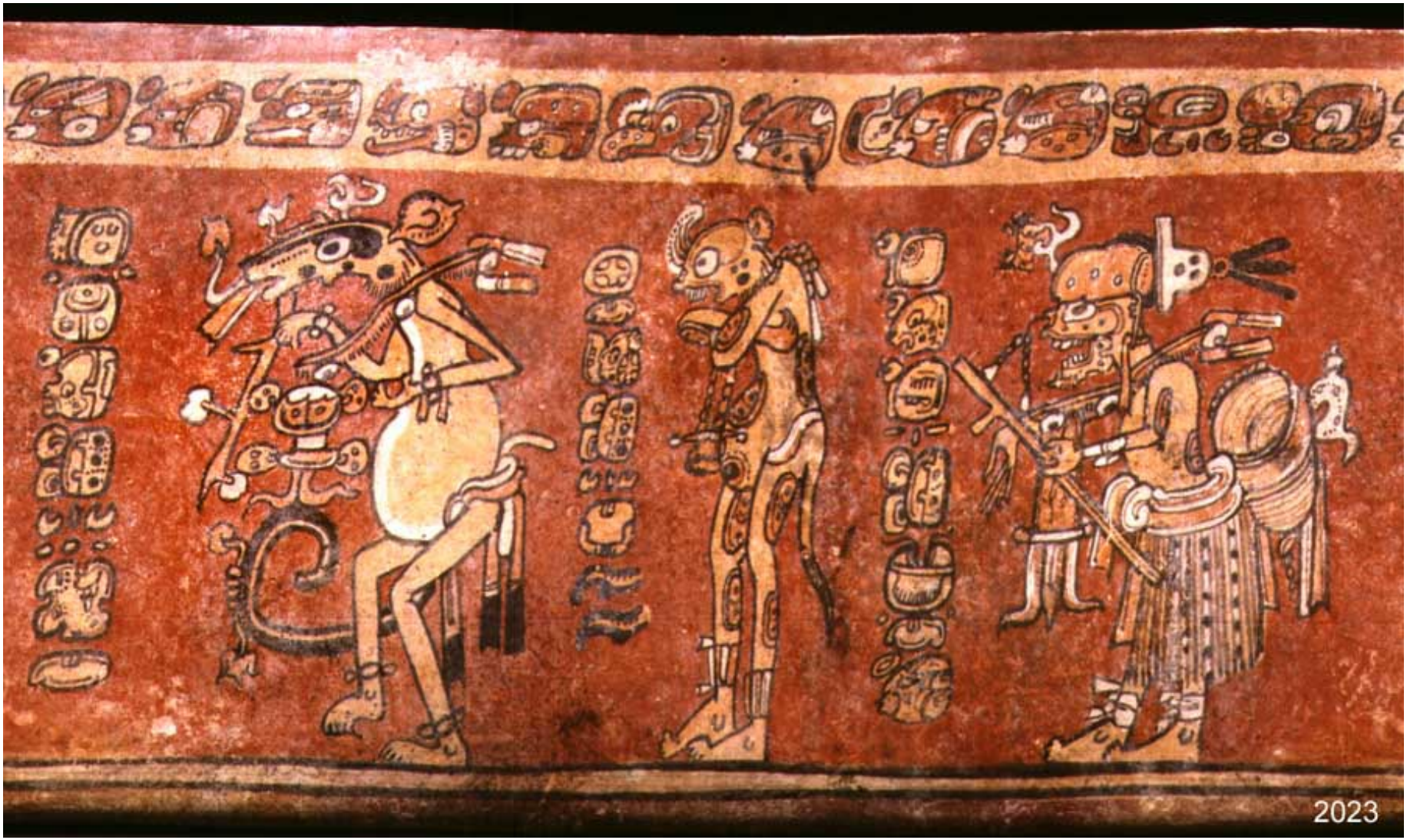
Ht. 9 Dia. 11.5 Cir. 33 cm CX

See Spero, J. and Kerr, J. Glyphic Names of Animals on Codex-Style Vases in *Seventh Palenque Round Table*, 1989.
Gen. Ed. Merle Robertson
Vol. Ed. Virgina Fields

© Kerr 1983
File No. K2011
Ht. 9.0 Dia. 10.5 Cir. 31 cm CX

cf. No K2096

© Kerr 1983
File No. K2022
Ht. 24.5 Dia. 8.5 Cir. 39.8 cm PY



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File No. K2025
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© Kerr 1983
Ht. 15.2 Dia. 10.4 Cir. 34.5 cm PY

File No. K2026

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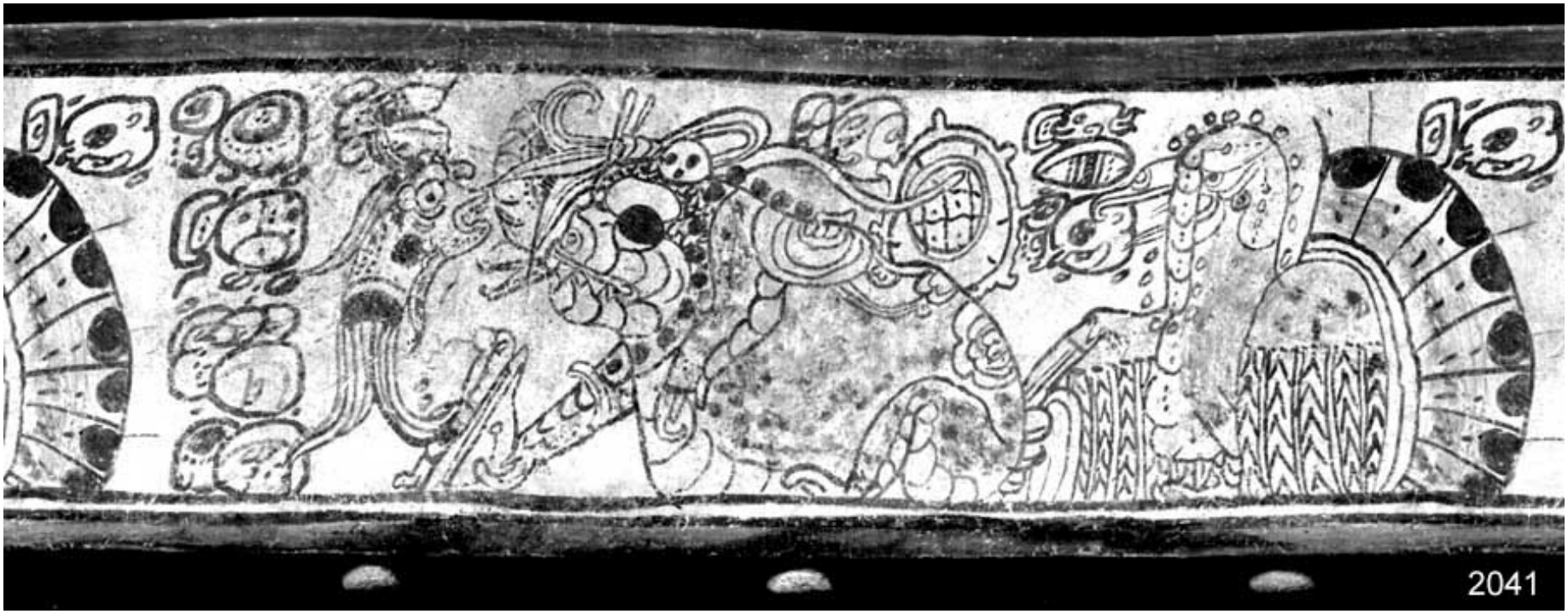
File No. K2027
Ht. 18 Dia. 14.6 Cir. 46.5 cm PY

Stucco

© Kerr 1983
Ht. 15 Dia. 15 Cir. 51 cm PY

File No. K2036



© Kerr 1983

File No. K2041

Ht. 11.5 Dia. 10.0 Cir. 29 cm C

See Spero, J. and Kerr, J. Glyphic Names of Animals on Codex-Style Vases in *Seventh Palenque Round Table*, 1989. Gen. Ed. Merle Robertson Vol. Ed. Virgina Fields

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File No. K2066

Ht. 9.2 Dia. 5.7 Cir. 18.0 cm CV

Stone

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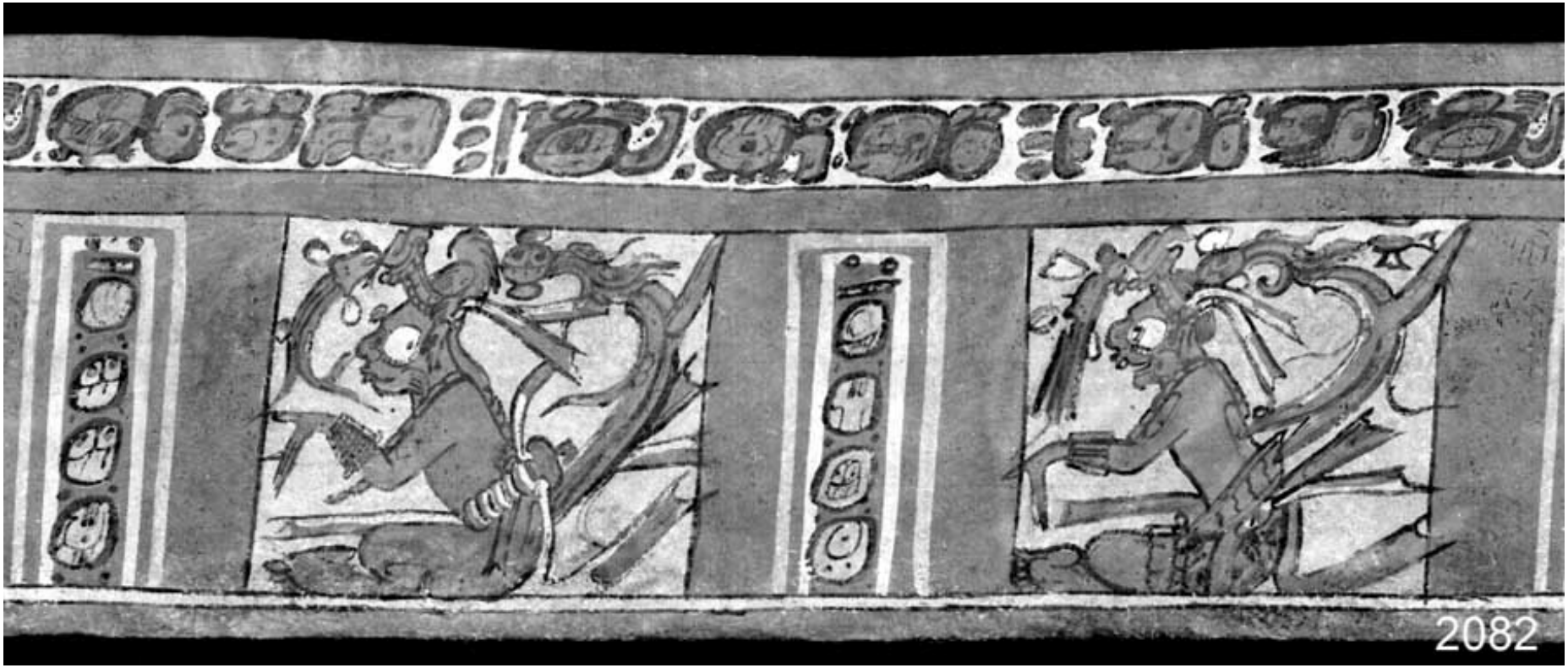
File No. K2067
Ht. 11.5 Dia. 13.0 Cir. 35.2 cm CX

© Kerr 1983
Ht. 19.0 Dia. 11.2 Cir. 34.2 cm CX

File No. K2068



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File No. K2082
Ht. 19.0 Dia. 15.6 Cir. 51.5 cm PY

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File No. K2083
Ht. 10.0 Dia. 6.0 Cir. 20.0 cm CV

Stone filled with cinnabar

© Kerr 1984
File No. K2085
Ht. 11.5 Dia. 13.0 Cir. 35.2 cm CX

© Kerr 1984
File No. K2094
Ht. 20.0 Dia. 9.6 Cir. 33.8 cm CX

See Volume 5 of The Maya Vase Book
for Simon Martin's article on these vases.

© Kerr 1984
Ht. 11.0 Dia. 10.6 Cir. 31.0 cm CX

File No. K2095

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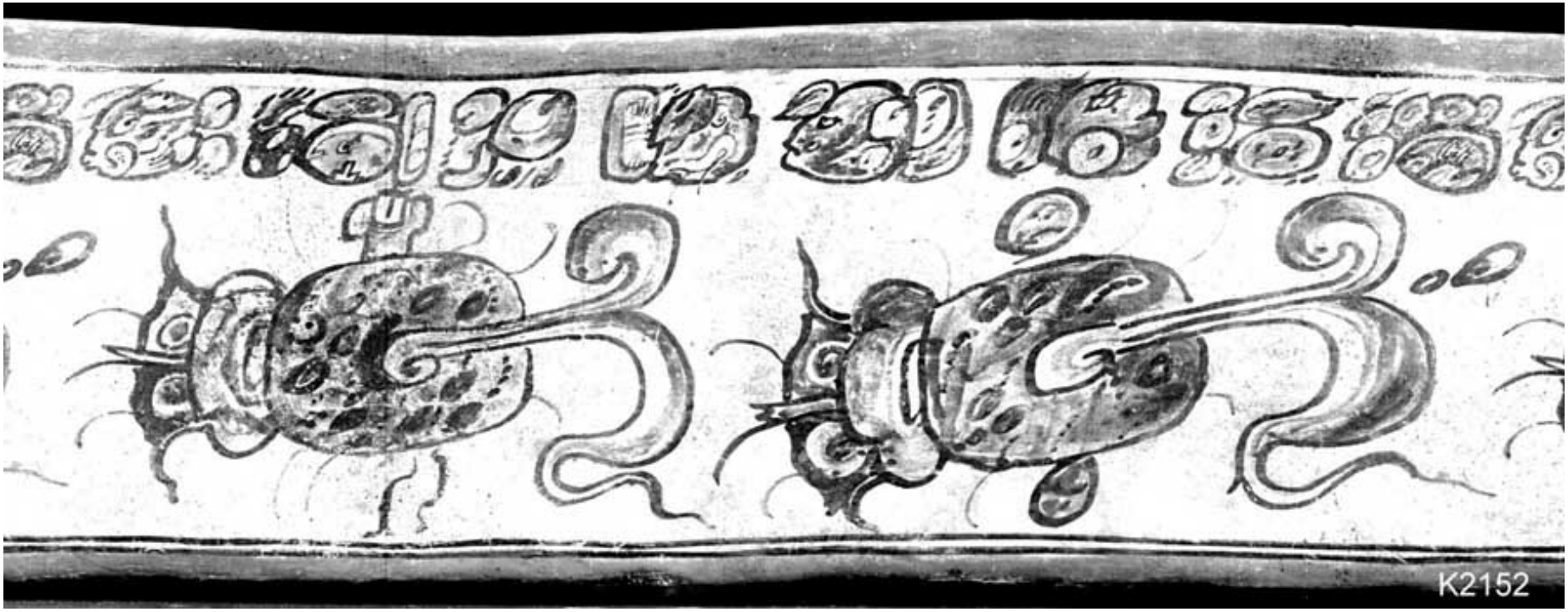
File No. K2096
Ht. 10.7 Dia. 11.8 Cir. 33.3 cm CX

cf.No. K2011



© Kerr 1984
File No. K2152
Ht. 12.5 Dia. 11.6 Cir. 32.0 cm CX

The most abstract version of the Vision Serpent.
Stross, B and Kerr, J.,
Notes on the Vision Quest Through Enema,
this volume.
Kerr, J. *The Scorpion's Tale: Symbolism and Abstraction in Maya Vase Painting.*
Paper delivered at the University Museum, Philadelphia, symposium, 1988

© Kerr 1984
File No. K2206
Ht. 19.0 Dia. 18.3 Cir. 58.0 cm PY

cf. No. K2352. Both vases depict the same people in the same event.

© Kerr 1984
File No. K2207
Ht. 14.5 Dia. 10.0 Cir. 30.6 cm CX

© Kerr 1984
Ht. 14.7 Dia. 14.0 Cir. 38.8 cm CX

File No. K2208

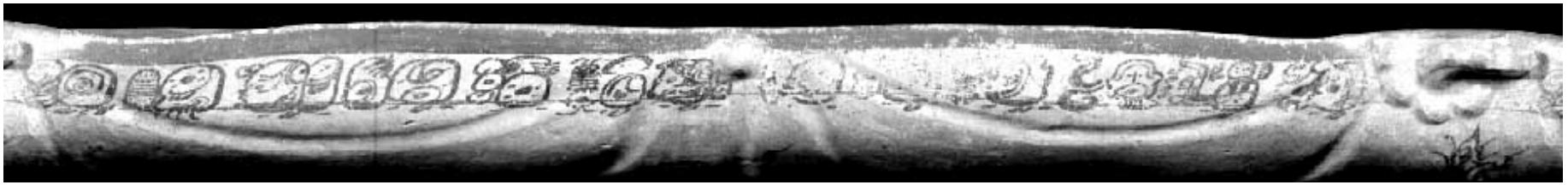
© Kerr 1984
File No. K2210
Ht. 18.0 Dia. 16.0 Cir. 46.0 cm CV

© Kerr 1984
File No. K2211
Ht. 11.5 Dia. 13.0 Cir. 35.2 cm CX

Another example, in the unfired state, from the mold that created this vase came to our attention. That example was tested and proved to be of modern manufacture

© Kerr 1984
File No. K2213
Ht. 12.5 Dia. 12.0 Cir. 34.0 cm CX

© Kerr 1984
File No. K2220
Ht. 16.2 Dia. 16.0.0 Cir. 45.3 cm PY



© Kerr 1984

File No. K2226

Ht. 11.5 Dia. 13.0 Cir. 35.2 cm CX

Underside of bowl is shaped like a gourd

© Kerr 1984
File No. K2285
Ht. 12.5 Dia. 11.3 Cir. 33.3 cm CX

Both individuals wear the AH K'UN
"keeper of the books" headdress.

© Kerr 1984
File No. K2284
Ht. 12.0 Dia. 12.0 Cir. 37.0 cm CX

For this page and next, see Grube, N & Stuart, D. Observations on T110 as the Syllable *ko*, in *Research Reports on Ancient Maya Writing*, Nos. 8-10, November, 1987

© Kerr 1984
Ht. 16.0 Dia. 13.3 Cir. 37.5 cm CX

File No. K2286

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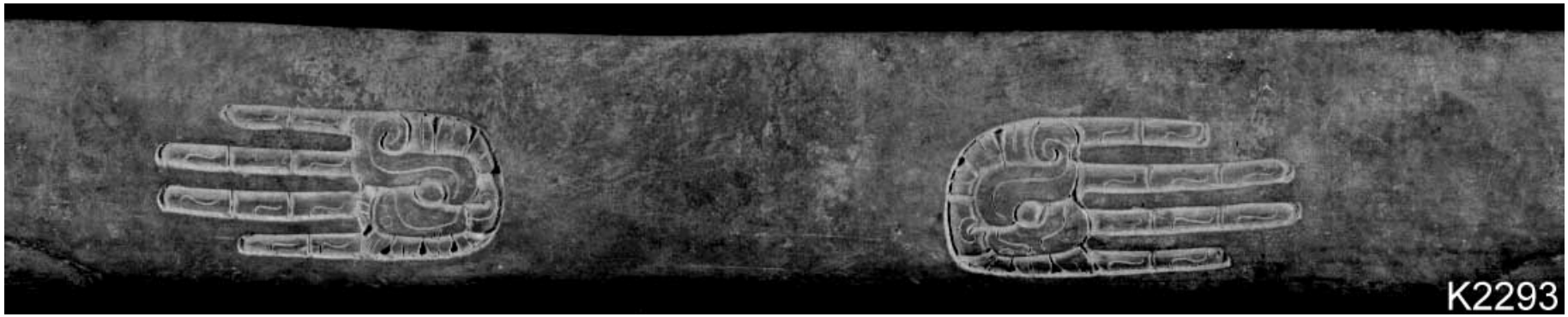
File No. K2292
Ht. 22.0 Dia. 14.0 Cir. 48.0 cm CV



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Ht. 13.0 Dia. 16.0 Cir. 42.0 cm CV

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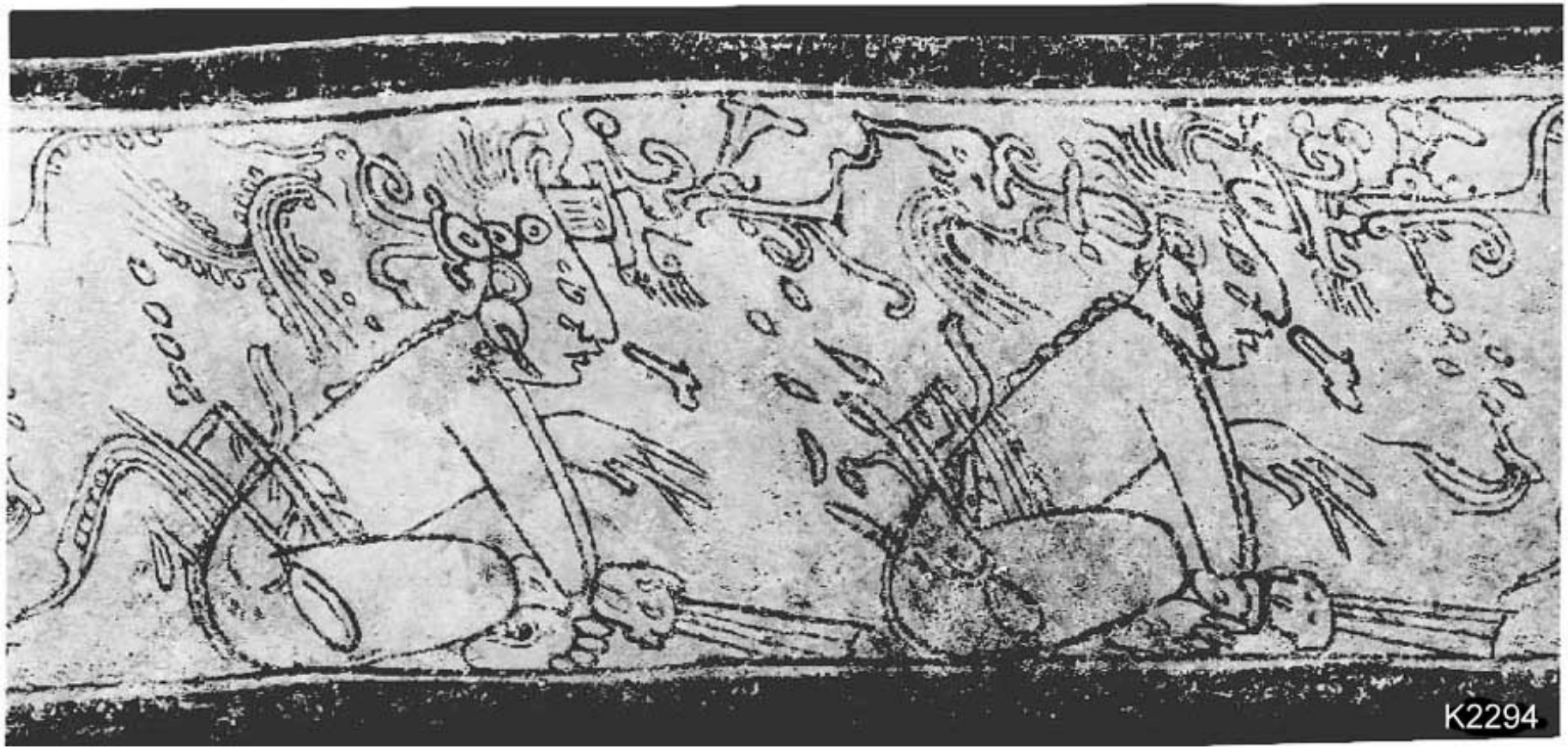
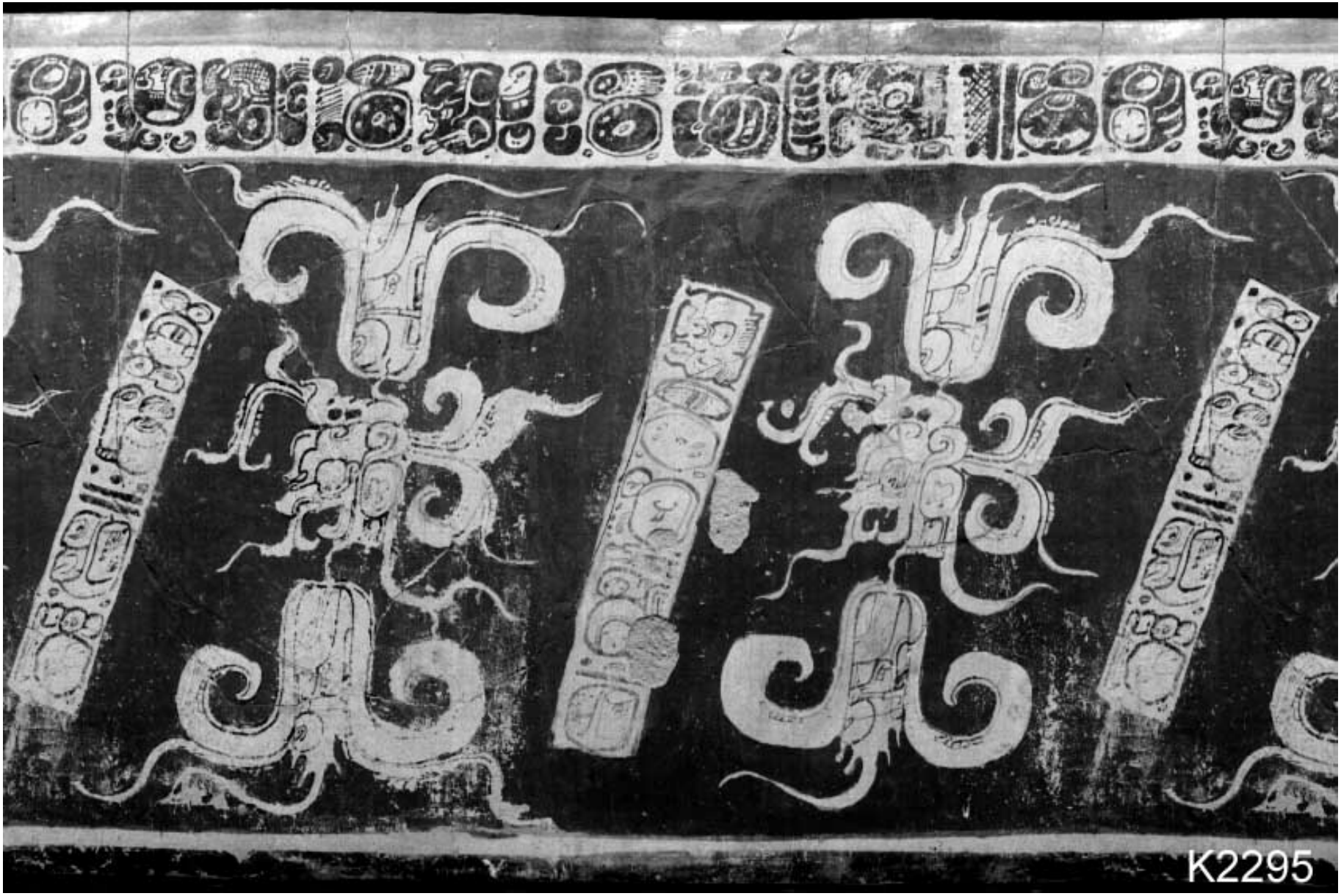


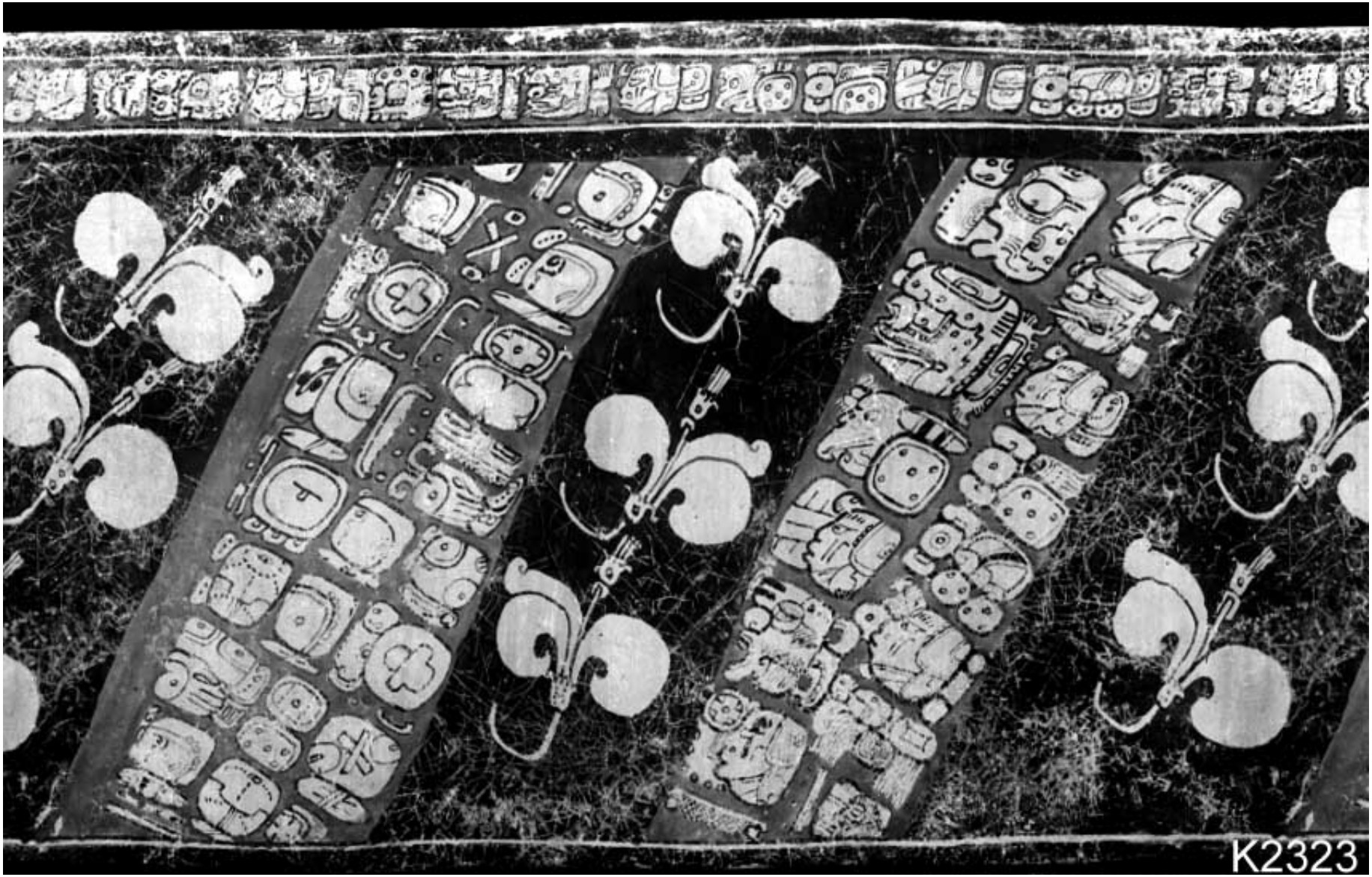
© Kerr 1984
File No. K2294
Ht. 13.7 Dia. 110.3 Cir. 30.5 cm CX

There are a number of vase where the
text and figures are painted facing right
rather than in the usual manner of facing left.



© Kerr 1984
Ht. 23.2 Dia. 8.5 Cir. 30.5 cm PY

File No. K2295



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File No. K2323
Ht. 24.8 Dia. 11.0 Cir. 36.5 cm PY

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Ht. 15.7 Dia. 6.5 Cir. 21.4 cm BW

File No. K2324

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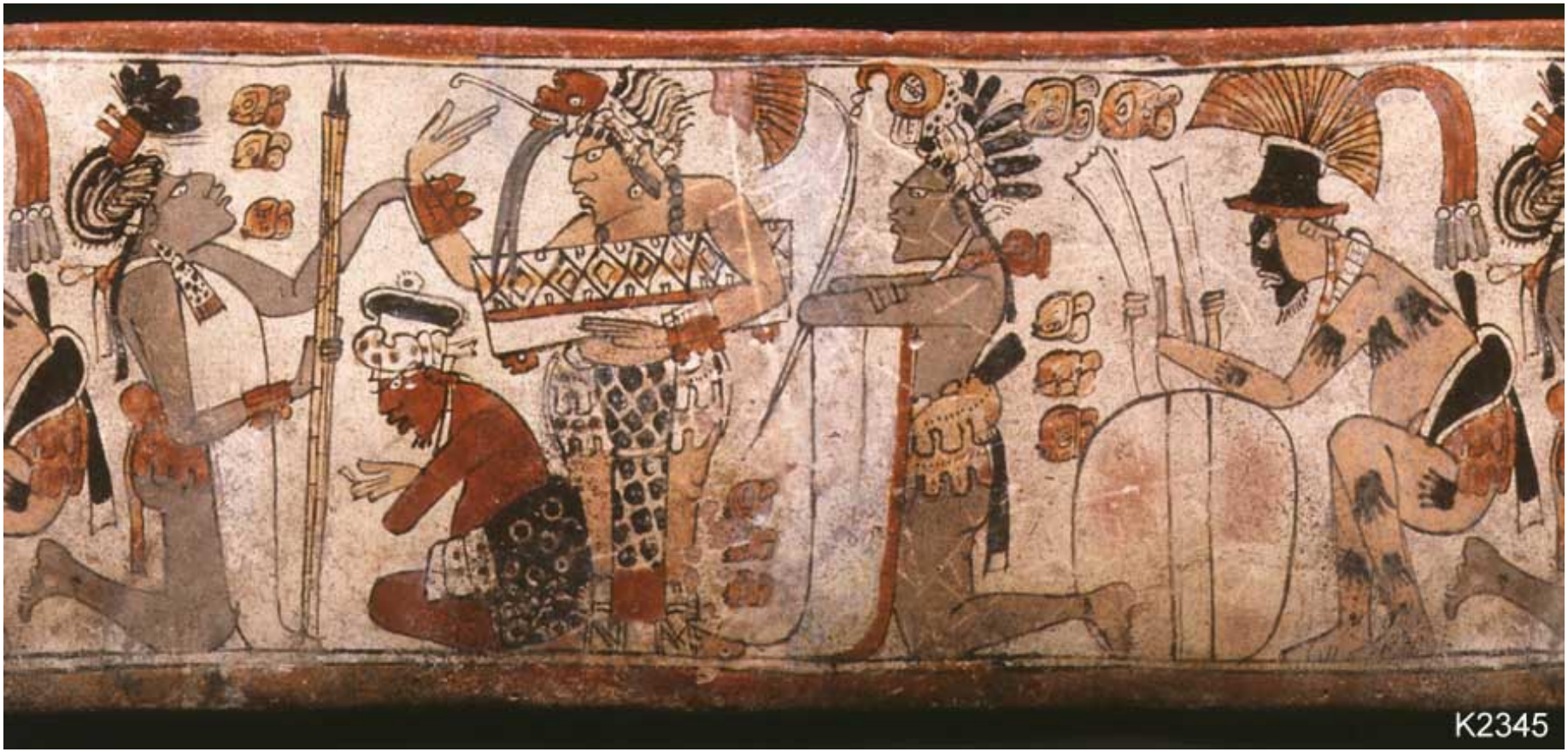
File No. K2341
Ht. 15.5 Dia. 12.2 Cir. 43.0 cm PY

Stucco

© Kerr 1984
Ht. 16.0 Dia. 17.7 Cir. 48.3 cm PY

File No. K2342



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File No. K2345
Ht. 13.3 Dia. 9.5 Cir. 29.0 cm PY

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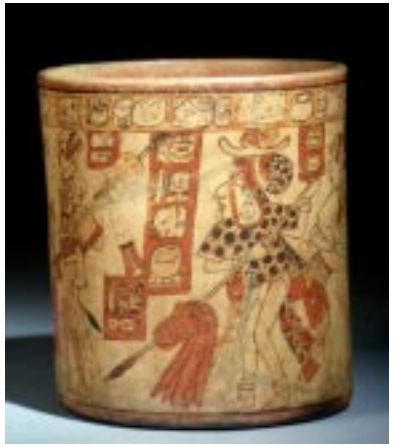
File No. K2352

Ht. 17.0 Dia. 15.5 Cir. 46.8 cm PY

See No. K2206



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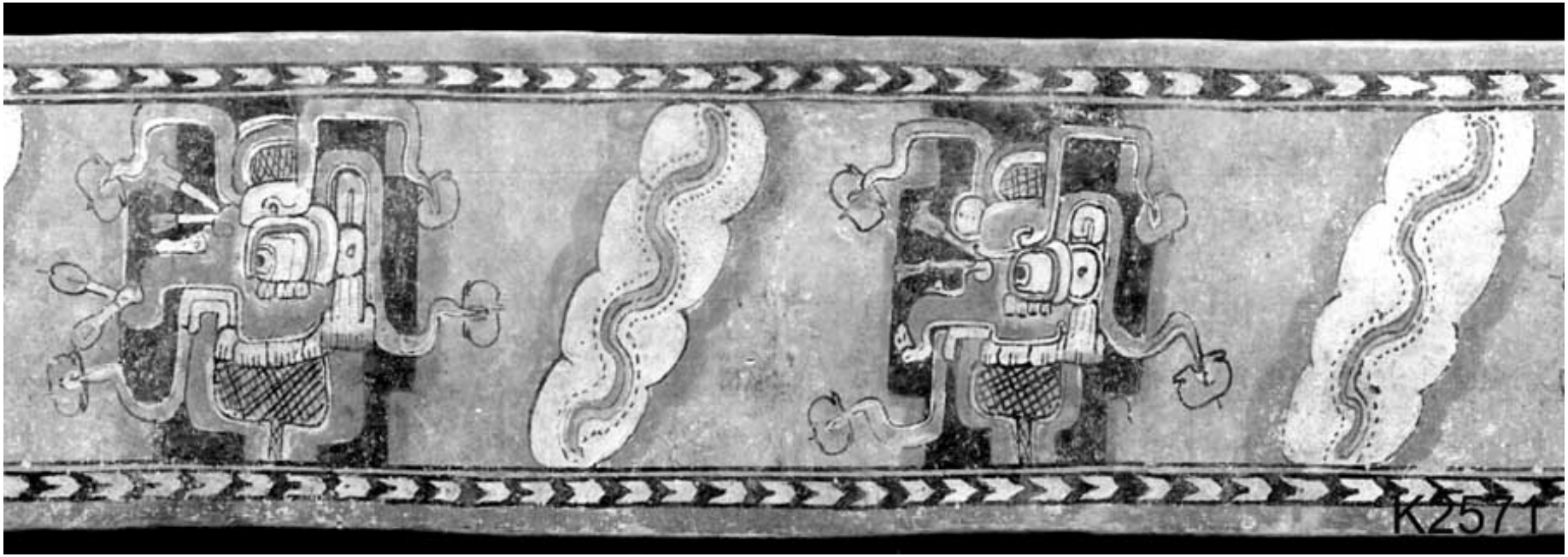
File No. K2356
Ht. 32.5 Dia. 21.5 Cir. 71.0 cm PY

© Kerr 1984
Ht. 12.4 Dia. 15.0 Cir. 43.0 cm BW

File No. K2358



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File No. K2571
Ht. 10.0 Dia. 15.6 Cir. 32.0 cm PY

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Ht. 11.4 Dia. 15.0 Cir. 3.0 cm CX

File No. K2572

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File No. K2573
Ht. 24.0 Dia. 12.0 Cir. 38.2 cm PY

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File No. K2583
Ht. 17.0 Dia. 12.0 Cir. 38.0 cm CX

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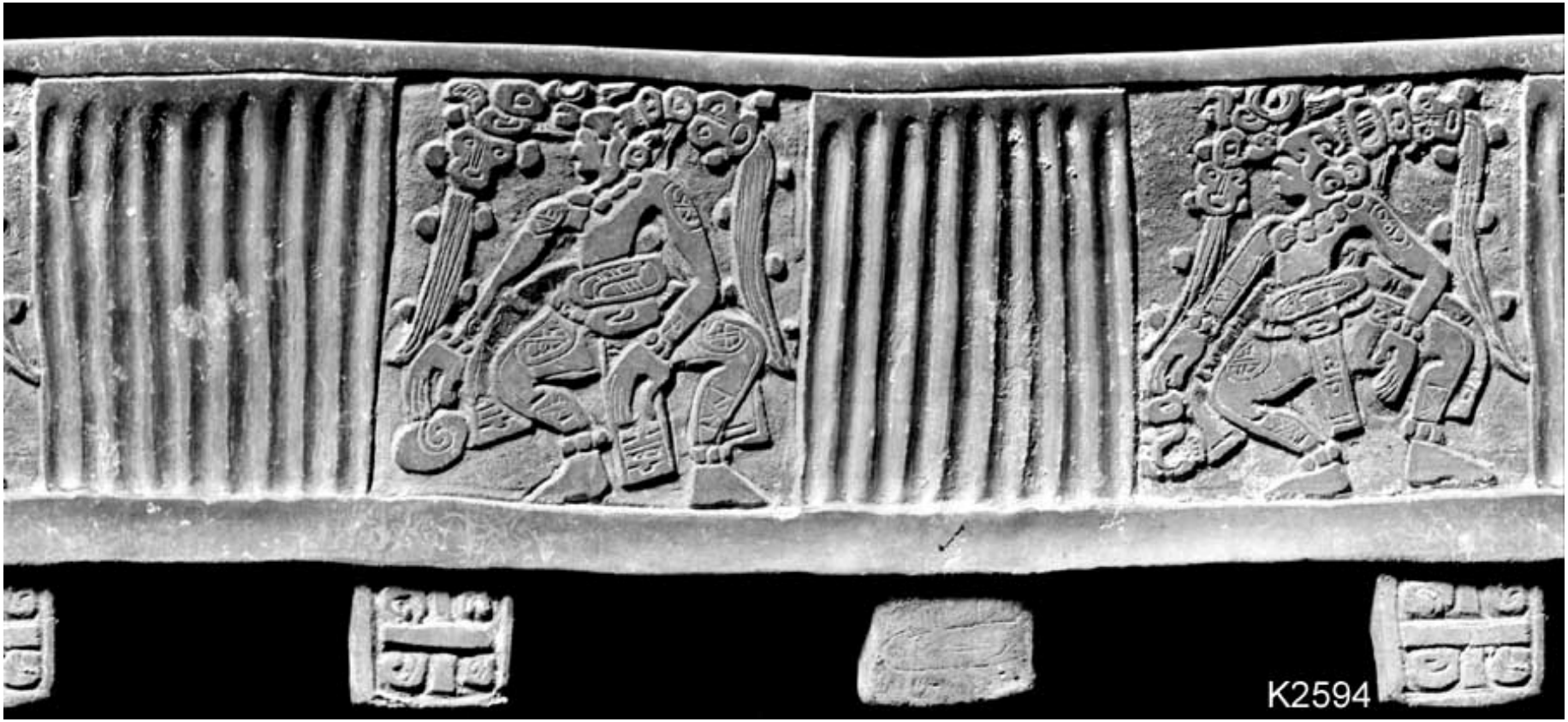
Ht. 26.0 Dia. 10.5 Cir. 34.3 cm CV

File No. K2592



© Kerr 1984
Ht. 14.0 Dia. 12.7 Cir. 33.7 cm CV

File No. K2594

© Kerr 1984
File No. K2595
Ht. 13.0 Dia. 12.5 Cir. 36.0 cm CX

© Kerr 1985
Ht. 15.0 Dia. 10.5 Cir. 32.3 cm CX

File No. K2603

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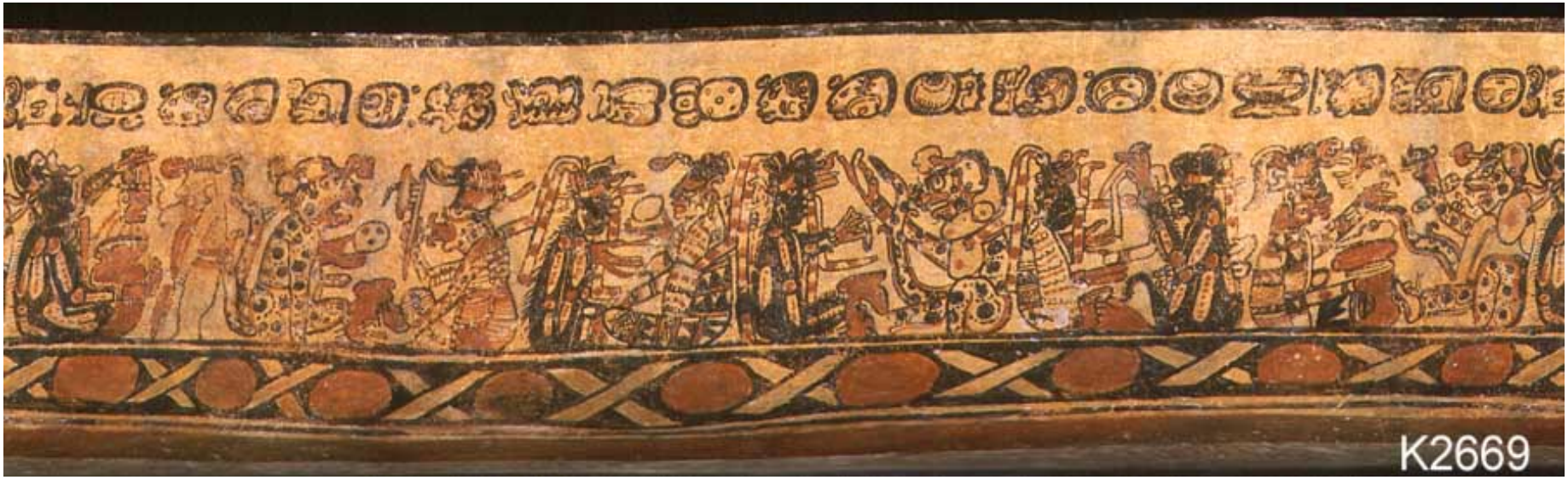
File No. K2598a
Ht. 22.2 Dia. 9.8 Cir. 33.3 cm PY

© Kerr 1984
Ht. 22.2 Dia. 9.8 Cir. 33.3 cm PY

File No. K2598b

© Kerr 1985
File No. K2668
Ht. 17.0 Dia. 13.0 Cir. 40.0 cm PY



© Kerr 1985
Ht. 15.0 Dia. 15 Cir. 50.0 cm PY

File No. K2669

© Kerr 1985
File No. K2695
Ht. 16.0 Dia. 9.8 Cir. 30.2 cm PY

Tikal, Guatemala
See

© Kerr 1985

File No. K2696

Ht. 16.5 Dia. 9.0 Cir. 35.5 cm MD

Seibal, Guatemala
See, MAYA-Treasures of an Ancient Civilization, NY 1985, p. 184

This scene must have been a popular one. Mold-made, this one has been excavated in Seibal, Guatemala and another in Copán, Honduras. There are three more examples in private collections

© Kerr 1985
File No. K2697
Ht. 13.5 Dia. 10.0 Cir. 31.0 cm PY

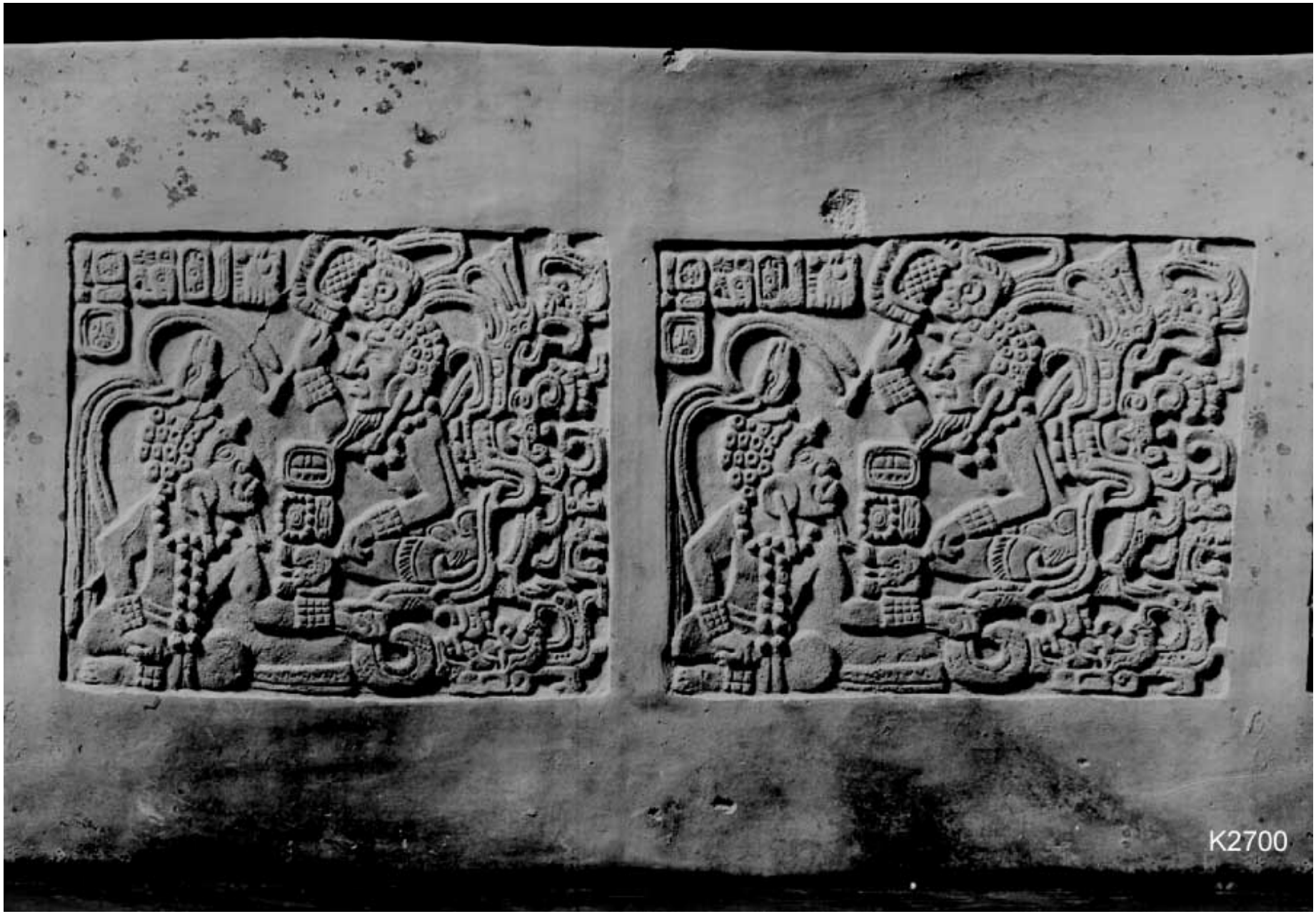
Tikal, Guatemala
See, MAYA - Treasures of and Ancient Civilization, NY 1985, p. 158

© Kerr 1985
File No. K2698
Ht. 17.2 Dia. 10.5 Cir. 32.3 cm PY

Tikal, Guatemala
See, MAYA - Treasures of and Ancient Civilization, NY 1985, p. 158

© Kerr 1985
File No. K2699
Ht. 21.0 Dia. 11.0 Cir. 34.0 cm PY

Tikal, Guatemala
See, MAYA - Treasures of and Ancient Civilization, NY 1985, p. 182



© Kerr 1985
File No. K2700
Ht. 20.0 Dia. 10.0 Cir. 30.5 cm MD

Zacapa?, Guatemala
See, MAYA - Treasures of and Ancient Civilization, NY 1985, p. 139

© Kerr 1985
File No. K2701
Ht. 21.0 Dia. 11.5 Cir. 34.4 cm PY

Santa Rita, Belize
See, MAYA - Treasures of and Ancient Civilization, NY 1985, p. 186

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File No. K2702
Ht. 23.5 Dia. 15.5 Cir. 45.5 cm CV

Motagua Valley?, Guatemala
See, MAYA - Treasures of and Ancient Civilization, NY 1985, p. 144

© Kerr 1985
File No. K2703
Ht. 17.2 Dia. 10.5 Cir. 32.3 cm IN

Becan, Campeche, Mexico
See, MAYA - Treasures of and Ancient Civilization, NY 1985, p. 118

© Kerr 1985
File No. K2704
Ht. 13.0 Dia. 16.5 Cir. 55.0 cm PY

Tikal, Guatemala
See, MAYA - Treasures of and Ancient Civilization, NY 1985, p. 175

© Kerr 1985
File No. K2705
Ht. 13.0 Dia. 25.0 Cir. 73.0 cm PY

Uaxactún, Guatemala
See, MAYA - Treasures of and Ancient Civilization, NY 1985, p. 111

© Kerr 1985
File No. K2706
Ht. 15.5 Dia. 22.0 Cir. 66.0 cm PY

San Agustin Acasaguastlán, Guatemala
See, MAYA - Treasures of and Ancient Civilization, NY 1985, p. 174

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File No. K2707
Ht. 11.0 Dia. 6.0 Cir. 21.7 cm PY

Tayasal, Guatemala
See, MAYA - Treasures of and Ancient Civilization, NY 1985, p. 185

See, Chase. Arlen F.. Contextual Irnplications of Pictorial Vases from Tayasal, Pethn. in Fourth *Patenque Round Table~ 1980, VoL W,* pps. 196-8
Gen Ed. Merle Greene Robertson. Vol. Ed. Elizabeth P. Benson.

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Ht. 19.0 Dia. 15.3 Cir. 52.5 cm PY

File No. K2709

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File No. K2710
Ht. 10.7 Dia. 12.0 Cir. 33.5 cm CX

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Ht. 19.7 Dia. 16 Cir. 44.7 cm PY

File No. K2711

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File No. K2713
Ht. 12.0 Dia. 12.0 Cir. 32.0 cm CX

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Ht. 13.5 Dia. 11.0 Cir. 32.0 cm CX

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File No. K2717
Ht. 13.7 Dia. 12.8 Cir. 36.0 cm CX

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File No. K2723
Ht. 18.0 Dia. 15.5 Cir. 46.0 cm CX

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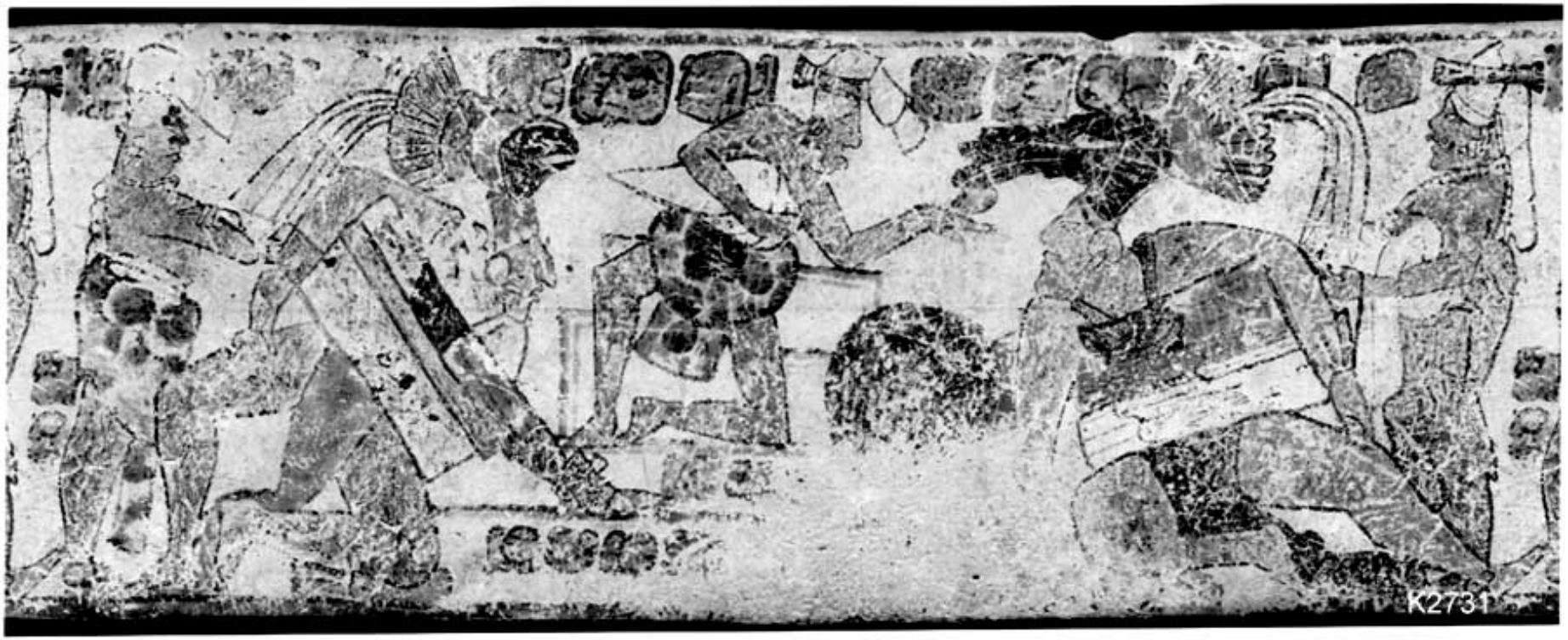
File No. K2730
Ht. 10.5 Dia. 14.0 Cir. 47.3 cm PY



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File No. K2731
Ht. 13.0 Dia. 10.5 Cir. 31.5 cm PY

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File No. K2732
Ht. 24.0 Dia. 15.9 Cir. 50.0 cm PY

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Ht. 20.0 Dia. 17.8 Cir. 54.5 cm PY

File No. K2744

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File No. K2756
Ht. 14.2 Dia. 18.2 Cir. 55.0 cm PY

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File No. K2756

Ht. 16.5 Dia. 10.7 Cir. 33.0 cm PY

Compare the end figure with grafitto at Tikal,
Str. 3D-43 Rm. 1, north wall

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File No. K2760
Ht. 15.0 Dia. 11.4 Cir. 33.0 cm CV

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Ht. 12.5 Dia. 19.8 Cir. 52.5 cm PY

File No. K2763

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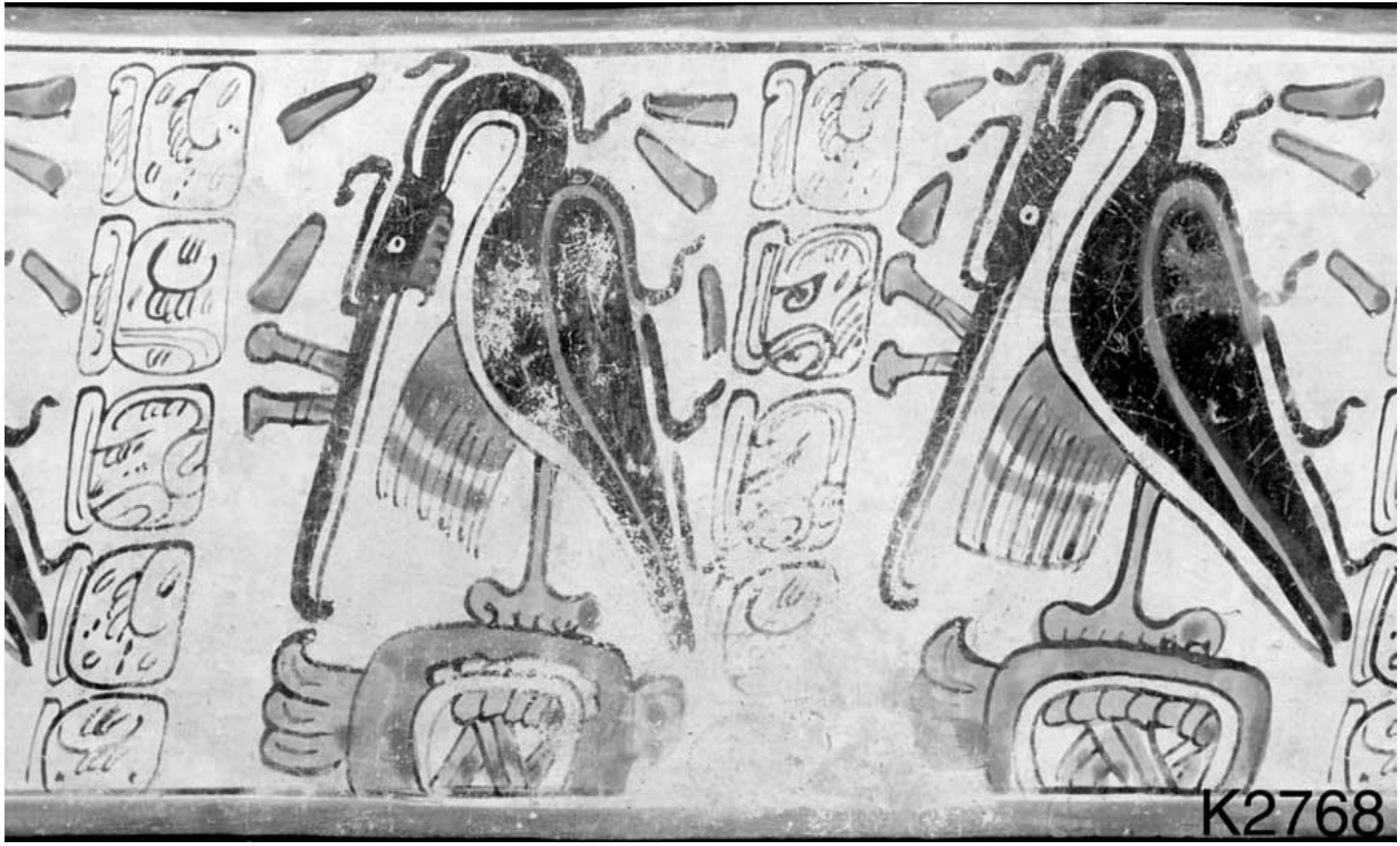
File No. K2764
Ht. 13.0 Dia. 13.5 Cir. 40.0 cm PY



© Kerr 1985
Ht. 21 Dia. 10.5 Cir. 33.7 cm PY

File No. K2768

© Kerr 1985
Ht. 21.5 Dia. 13.3 Cir. 44.0 cm cx

File No. K2772

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File No. K2773
Ht. 13.0 Dia. 11.5 Cir. 35.0 cm BW

Indiana Museum of Art

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File No. K2777

Ht. 6.0 Dia. 17.5 Cir. 49.0 cm PY

Stucco

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File No. K2780
Ht. 23.1 Dia. 9.0 Cir. 34 cm PY

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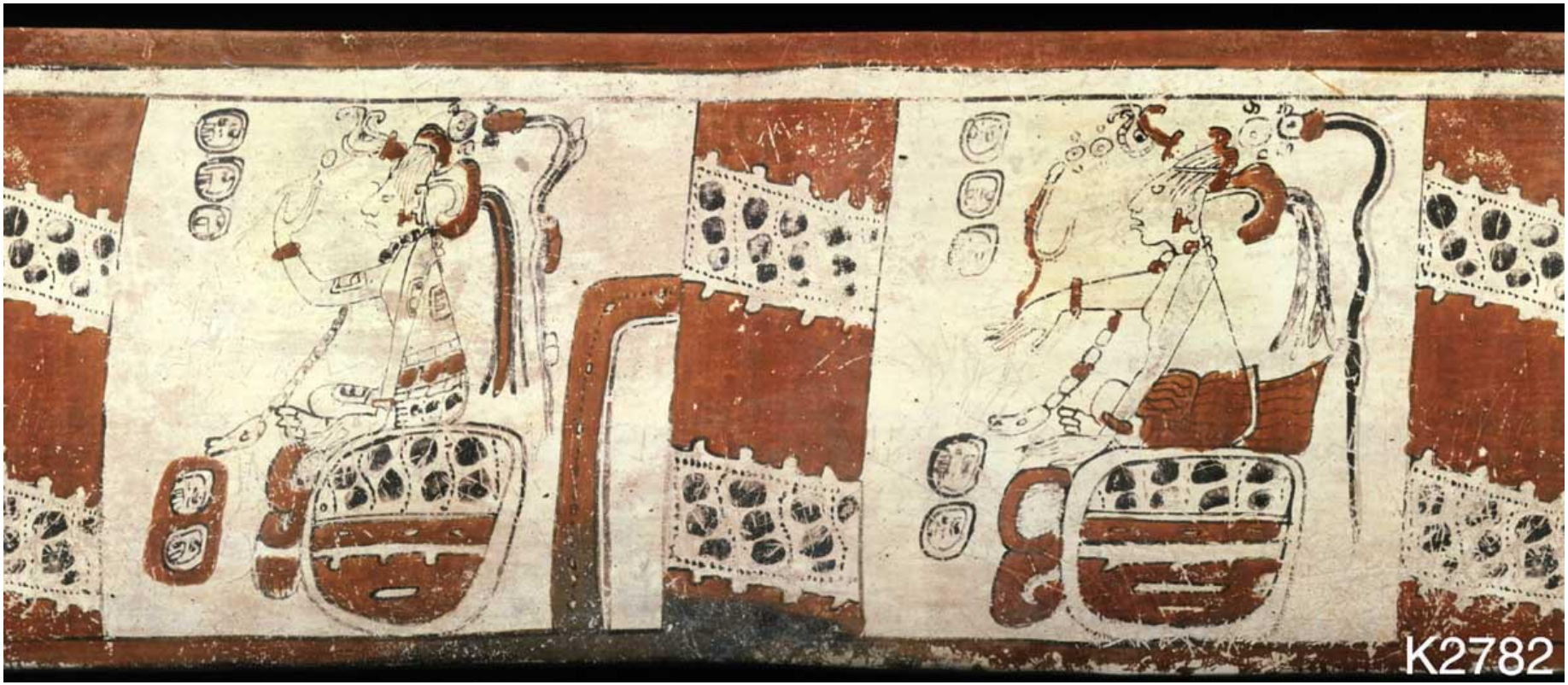
File No. K2781
Ht. 20.4 Dia. 18.5 Cir. 55.2 cm PY

Dumbarton Oaks



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File No. K2782
Ht. 19.2 Dia. 14.4 Cir. 45.0 cm PY

Dumbarton Oaks

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File No. K2784
Ht. 20.2 Dia. 16.5 Cir. 49.5 cm PY

Dumbarton Oaks

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File No. K2787
Ht. 16.2 Dia. 15.2 Cir. 56.0 cm PY

Dumbarton Oaks

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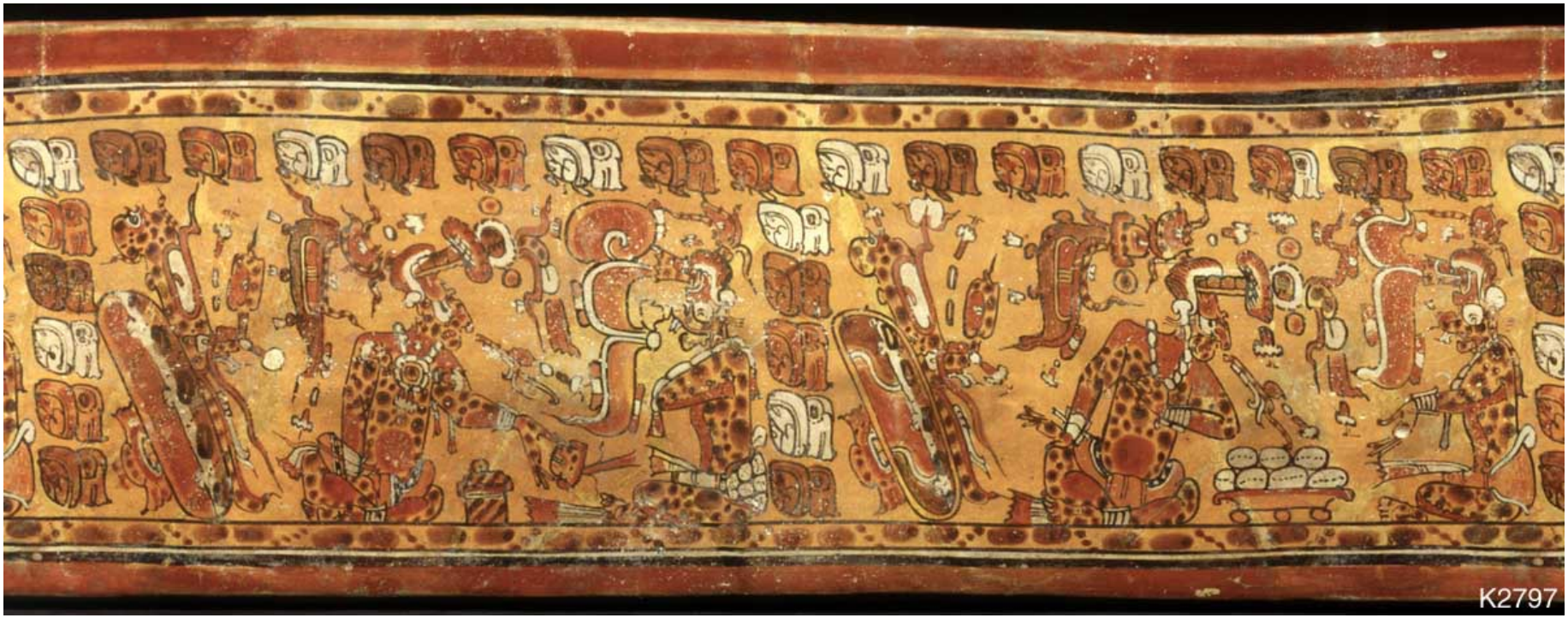
File No. K2794
Ht. 11.8 Dia. 10.2 Cir. 31.2 cm CX



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File No. K2797
Ht. 21 Dia. 11.0 Cir. 35.4 cm PY

The Art Institute of Chicago

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File No. K2799
Ht. 20.3 Dia. 15.7 Cir. 48.5 cm IN

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File No. K2914
Ht. 28.2 Dia. 14.7 Cir. 56 cm PY

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Ht. 20.0 Dia. 10.5 Cir. 33.2 cm PY

File No. K2923

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File No. K2928
Ht. 6.0 Dia. 21 Cir. 60 cm CX

Text from shallow bowl

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Ht. 13.4 Dia. 18.3 Cir. 58.2 cm PY

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File No. K2774

Ht. 11.6 Dia. 15.3 Cir. 57.0 cm CV with stucco

Bloomington Museum of Art

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File No. K4022
Ht. 10.6 Dia. 15 Cir. 44 cm CV

American Museum of Natural History
303/2457

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File No. K4333
Ht. 14.0 Dia. 15.0 Cir. 44.3 cm CV

Dumbarton Oaks

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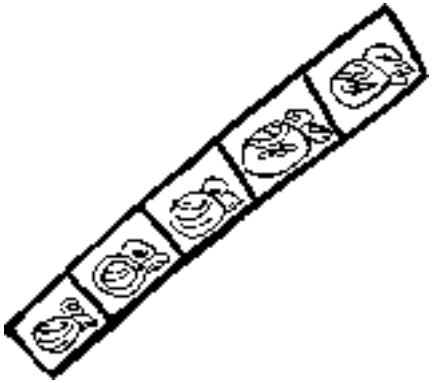
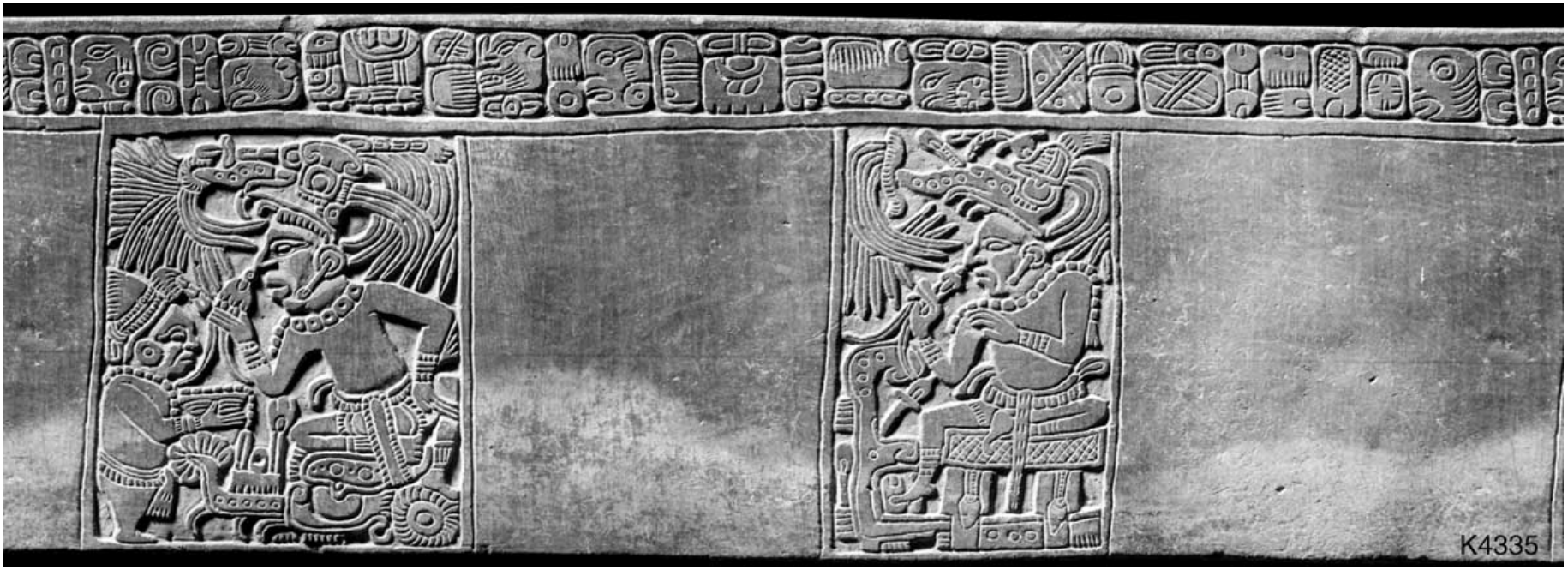
Ht. 16.0 Dia. 16.7 Cir. 49.6 cm CV

File No. K4334

Dumbarton Oaks





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File No. K4335
Ht. 16.5 Dia. 16.7 Cir. 49.6 cm CV

Dumbarton Oaks

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File No. K4337
Ht. 11.0 Dia. 13.0 Cir. 44.0 cm CV

Dumbarton Oaks

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File No. K3199
Ht. 9.5 Dia. 20 Cir. 55.5 cm CV

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File No. K4378
Ht. 9.5 Dia. 20.0 Cir. 56.0 cm CV

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Ht. 12.0 Dia. 16.6 Cir. 45.0 cm CV

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Ht. 12.6 Dia. 15.0 Cir. 44.5 cm CV

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See The Maya Scribe and His World, M. Coe
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Ht. 11.5 Dia. 14.5 Cir. 43.0 cm CV

See The Maya Scribe and His World, M. Coe no. 63.

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File No. K4468
Ht. 17.5 Dia. 13.3 Cir. 53.0 cm CV

cf. The Maya Scribe and His World, M. Coe
No. 74

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Ht. 15.0 Dia. 14.6 Cir. 43.0 cm CV

The Princeton Art Museum

File No. K4477

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File No. K4478
Ht. 12.0 Dia. 16.2 Cir. 55.0 cm CV

The Princeton Art Museum

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Ht. 12.0 Dia. 17.2 Cir. 54.0 cm CV

File No. K4481

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File No. K4542

Ht. 17.1 Dia. 17.0 Cir. 47.5 cm CV

Traces of stucco

See The Maya Scribe and His World, M. Coe
No. 55

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File No. K4547
Ht. 13.0 Dia. 13.0 Cir. 41.8 cm CV

THE ESSAYS

https://www.academia.edu/43501597/The_Primary_Standard_Sequence_on_Chochol%C3%A1_Style_Ceramics

THE PRIMARY STANDARD SEQUENCE ON CHOCHOLA STYLE CERAMICS

NIKOLAI GRUBE

A certain group of carved ceramic vases of unknown provenance which share the same stylistic and physical features was named "Chocholá" Michael Coe (1973: 144). who was the first to publish a group of these in the exhibition catalogue "The Maya Scribe and His World". The most remarkable feature of Chocholá ceramics is that they are carved or molded rather than painted. The highly elaborate carvings share many iconographic motifs with ceramics from the Southern Lowlands, though most scholars think that the Chocholá style originates somewhere in the Northern Lowlands. Chocholá ceramics are usually between 10 and 15 cm in height and use simple vessel shapes (bowls and cylindrical vessels). The most detailed treatment of the iconography of Chocholá ceramics was presented by Carolyn Tate at the 1983 Palenque Round Table Conference (Tate 1985).

Unfortunately, the Chocholá ceramic style is known only from looted vessels. Thus we do not know their provenance nor the archaeological contexts in which they were found. In 1843 John Lloyd Stephens was shown a Chocholá vessel in the village of Ticul in Yucatan (Stephens 1961: 163). Seventy years later Herbert Spinden illustrates two Chocholá ceramics, one of which came to light in Peto in the southeastern part of Yucatán. The other reportedly originated in Calcehtok Yucatán (Spinden 1913: Figs. 185, 186). According to information by Michael Coe, most ceramics in the style of Chocholá that are published in the Grolier Catalog originate from mounds close to the present villages of Chocholá and Maxcanú which are southwest of Mérida. Therefore he called this unprovenanced style "Chocholá". Since Coe's provenance information is not absolutely reliable we should regard the whole style as unprovenanced until the first Chocholá ceramics are found in archaeological excavations. Even then, the location of workshops which produced this extraordinary style could not be known until extensive comparative data from epigraphy and chemical analysis of clay sources become available.

The corpus of Chocholá ceramics has never been published together. The largest group of Chocholá ceramics was published in the Grolier Catalog (Coe 1973). Carolyn Tate (1985) first discussed the iconography of the Chocholá ceramics and illustrated several vases in line drawings. A group of Chocholá ceramics is published in this volume, as a special section (Pages 298 - 314).

THE PRIMARY STANDARD SEQUENCE ON Chocholá STYLE CERAMICS

This short study will concentrate on Primary Standard Sequences (hereafter abbreviated as PSS) on Chocholá ceramics. The PSS is a highly repetitious text that occurs usually as a rim text on many ceramic vessels from all parts of the Maya Lowlands. The PSS is a glyphic formula that refers to the dedication of a vessel, its method of adornment, the class of vessel involved, its use and content (cacao drinks and maize gruels), and sometimes the owner or artisan (Houston and Taube 1987; Houston, Stuart and Taube 1989; Stuart 1989; MacLeod 1989; MacLeod and Grube 1989; Grube 1986). Recent epigraphic research has shown that dedication texts structurally similar to the PSS can occur on all carved, incised or painted objects, and even on architectural structures.

Hieroglyphic texts on Chocholá ceramics are either written under the rim of a vessel, or they form diagonal bands on the opposite side of the vessel from the carved scene. In the latter case, hieroglyphic texts are usually placed in one or several cartouches. Among the texts on Chocholá ceramics, the PSS represent by far the

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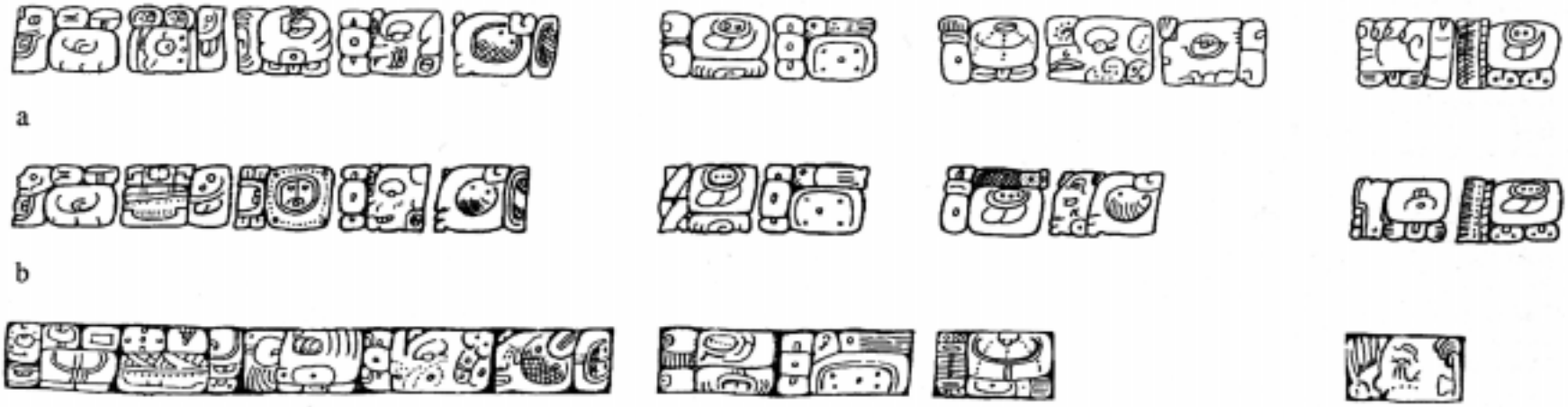

Figure 1. *Four PSS from Chochola ceramics analyzed into their four segments.*
a. Vessel in the Berlin Museum für Völkerkunde. Drawing after photographs courtesy of the Berlin Museum für Völkerkunde;
b. Drawing after Kerr No. 3199;
c. Drawing after Coe 1973:73 (text reversed);
d. Drawing after Kerr No. 4542

largest group. Other kinds of texts, like glyphic captions which refer to the painted scenes are less frequent on Chocholá ceramics than on those from the Southern Lowlands. The PSS on Chocholá ceramics have variations and unusual glyphs which make them different from the PSS on polychrome vases from. the Petén. In the following paragraphs it will be shown that it is not so much the general structure of the PSS that differs from that of the Southern Lowlands but variations in the composition of single glyphs.

Like other PSS, the Chocholá PSS can be divided into several segments (Figure 1). The first segment contains introducing glyphs which refer to the dedication of the vessel and its particular decoration. The second segment consists of a possessed nominal phrase which spells the name of the object. the vessel. Next comes a section which is introduced by a preposition and therefore is called "prepositional phrase". Finally, a sequence of personal names and titles may be present in the last segment of the PSS. Of these four segments, only the possessed nominal phrase is always present. The nominal phrase can be called the most basic component of the PSS. On most Chocholá ceramics, the nominal phrase is represented by two glyphs, of which the second is the "Wing Quincunx" glyph, now known to spell the Maya word for "his drinking cup", or /y *uch'ib* (Houston and Taube 1987; Grube and MacLeod 1990: Houston, Stuart and Taube 1989). A characteristic feature of the Chocholá PSS is that the wing of the Wing Quincunx is often replaced with a full-figure bird. On a few ceramics, however, not even the Wing Quincunx is present. Here, the PSS is reduced to the first glyph of the nominal phrase which reads u *ha-yi* (Figure 2)_ Apparently, *u hay* is the most basic "name tag" for Chocholá ceramics. The word *hay is* translated as "thin in Cholan and Yucatecán dictionaries (Barrera Vasquez 1980: 189). When *u hay* alone is used as a name tag, it is always followed by the names and titles of the owner of the vase and possibly translates as "the thinness of. Such short texts

Figure 2. The PSS is reduced to its most basic form, the glyph for u hay, "its thinness". (K4333)

are not very common. It is more usual to find u *hay* together with the Wing Quincunx glyph. Both glyphs together can be translated as "his thin-walled vase." In this case the yu of the Wing Quincunx may just be a liaison and not the bearer of a pronoun. The *hay* obviously was treated by Classic scribes as a noun root, but in present day Chol and Yucatec it is an adjective.

The word *hay is* not only found in the Chocholá PSS, but is also present on red background ceramics from. Uaxactun. On these ceramics the main sign of the Uaxactun emblem (T562) is often inserted between the *u* and the *hay,* qualifying the vases as "his Uaxactun thin-walled vase" (Figure 3a). On a stuccoed tripod vessel that was excavated at Uaxactun, *hay is* called u *k'ul k'aba* "the holy name" of Wing Quincunx. the vase (Figure 3c). Thus, the whole noun phrase in the Chocholá PSS refers to a certain quality of the vases, namely the thinness of their walls which certainly was regarded as superior craftsmanship in contrast to the thick walled ceramics for everyday use.

The passage that precedes the noun phrase takes several forms. The first glyph seems to be a variant of the Initial Glyph

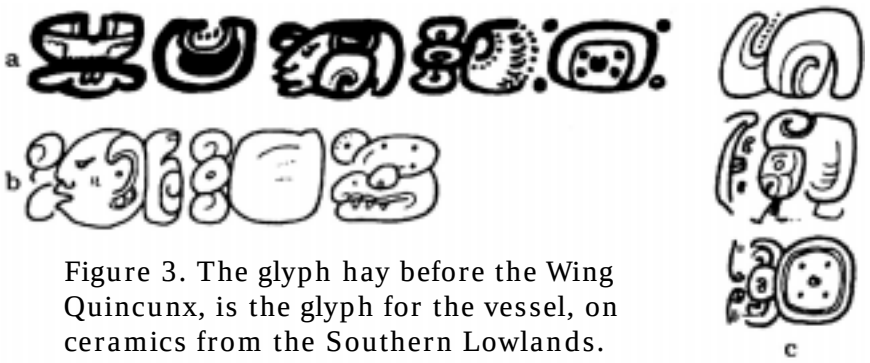

Figure 3. The glyph hay before the Wing Quincunx, is the glyph for the vessel, on ceramics from the Southern Lowlands.
a. "Uaxactun" -hay - Wing Quincunx" after Coe 1973: 38; b. u hay "Wing Quincunx" or "his thin- walled vase", after Schele 1985: Fig. 3:
c. hay k'ul k'aba, "thin(ness?0 is the holy name of the vase", after Smith 1955: Fig. 1a.

of the PSS (Figure 4). The Initial Glyph is used in the PSS and other texts to highlight the glyphs which follow. In the Chocholá PSS it consists of three signs; a prefix which spells the vowel a, a superfix reading *ahau* "king" and a main sign, which is similar to the main sign often found in the Initial glyph from other PSS. The presence of the *ahau* sign in the Initial Glyph is highly unusual if compared with Initial Glyphs from inscriptions in the Southern Lowlands. In the inscriptions of Chichen Itzá, however, there are many Initial Glyphs introducing dedication texts which have either *ahaw* or T506, *wa* as their main sign.

Only a very few have the *yich* glyph which is found so often In PSS from the Southern Lowlands (Figure la,c). The *yich* glyph has been analyzed by Barbara MacLeod (1989) as the possessed form of the word *hich,* "writing surface". Another glyph which is more frequent in the introductory part of the Chocholá PSS is the so-called *lu*-bat This glyph is found in substitution with *u ts'ib*, "his writing" on ceramics which are carved rather than being incised. It has been identified as a glyph for "carving" (Stuart 1986, Grube 1986), but no reading has been suggested yet. All of the signs which form part of the *lu*-bat glyph can be read syllabically. Though the bat-head is some times found in replacement for *ts'i* (Stuart 1987: 8), a *ts'i* syllabic value is questionable in this context. When the lu-bat is used as a sculptor's title, the *yu* sign is substituted by the male agentive *ah* that is usually found before titles in Yucatec and the phonetic sign *u*. This indicates that the word for "carving" expressed by the *lu*-bat glyph begins with *u* and that the *yu* sign found otherwise, spells the *y*-pronoun. Unfortunately, no such word has hitherto been discovered in any of the Cholan or Yucatecan dictionaries.

Another glyph which sometimes surfaces in the introductory part of the Chocholá PSS between the Initial Glyph and the *lu*-bat is a verbal glyph. This specific position in other PSS is characteristic for the "Flat-hand Verb". The glyph occurs in many forms in the Chocholá PSS (Figure 5). The only constant element is the *ha* sign (T181) which may be present here to spell a verbal suffix The first sign is ei-

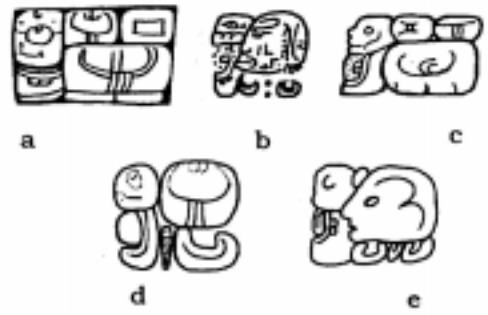

Figure 4. *The Initial Glyph. a. after Coe 1973:73; b. from a vessel in Chocholá style said to be from near Xcalumkin; c. from a vessel in the Berlin Museum für Völkerkunde; d. Chichén Itzá Monjas Lintel 4, B5 (after a drawing by Ian Graham in Thompson 1977); e. Chichén Itzá, Temple of the Four Lintels, Lintel 1a, A1.*

ther a k'in-knot or a sign deciphered by David Stuart as the syllable *pi* (Stuart 1987: 11-13). Several signs occur in main sign position, either the 'sky" sign T561 (Figure 5a, b), the cauac sign T528 (Figure 5c, d) or a death head corresponding to T232 in the Thompson (1962) catalogue (Figure 5e). Since the *k'in*-knot occurs with the *chaan* "sky" sign as well as with the 1528 *cauac* sign, it is very likely that all the variants spell the same word. The meaning of the whole glyph is unknown. TheT561 *chaan* main sign also occurs in a few Flat-hand verb glyphs on polychrome ceramics from the southern lowlands (Figure 5g, h).

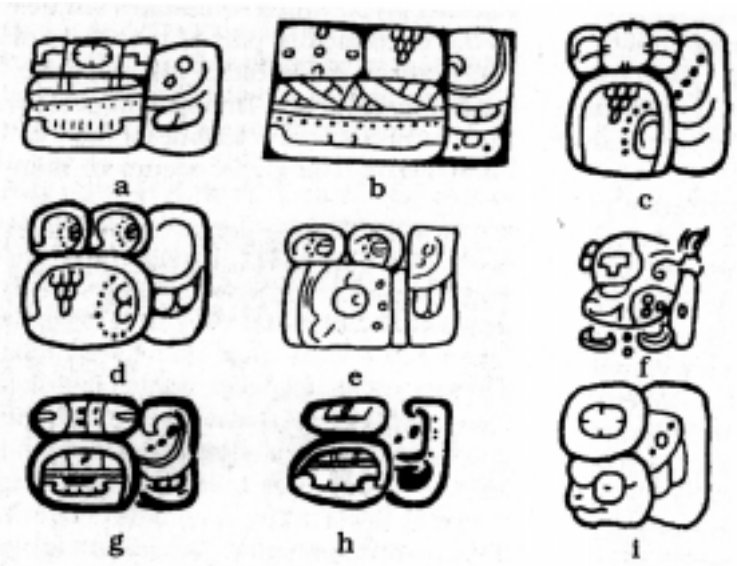

Figure 5. *Glyphs that substitute for Flat-hand verb on Chocholá style ceramics. a. Kerr 3199; b. Coe 1973: 73; c. after Tate 1985: Fig. 6; d. Pearlman 29 (Coe 1982: 63); e. Vessel in the Berlin Musuem für Völkerkunde (Eisleb 1969: 19); f.* uti-ya *replacing the Flat-hand verb on a vessel in Chocholá style said to be from Xcalumkin; g. T561 substituting for the T713a-hand, (Kerr No. 4021;) h. Kerr No. 1775; i. Itzimte, Lintel 1, J1 (drawn after von Euw 1977: 31)*

Interestingly, the glyph In discussion is substituted by an *uti-ya* glyph on a vase which reputedly is from near Xcalumkin, Yucatán (Figure 5f. The Cholan word *ut* and its Yucatecan equivalent, *uch* mean "to come to pass" and "to finish" (Kaufman and Norman 1984: 135; Barrera Vasquez 1980- 897). The Flathand verb which is otherwise used in this syntactical position therefore represents a verb with a very broad and general meaning, an assumption which is confirmed by the wide distribution of the glyph in many different contexts (Grube 1986: 3-4).

Finally. two PSS on Chocholá ceramics insert a variant of the glyph for the day sign Ahau between the "Flat-hand Verb* and the *lu*-bat (Figure lb). Neither the reading nor the function of this glyph are known to me.

We will now turn our attention to the glyphs that can follow immediately after the possessed noun phrase, "his thin walled vessel". As was already mentioned earlier, the first of the one to four glyphs that constitute this phrase is always preceded by a preposition (Figure 6). These glyphs provide information about the content of the vessels (Stuart 1986; Grube 1986; MacLeod and Grube 1989). The glyphs refer directly to the kind of beverages which were held in them. In its most abbreviated form the prepositional phrase is made up of only one glyph. This glyph consists of a preposition *ti* "for" and a noun which spells the name for the beverage involved. Thus we find very short statements about the contents of the vessels: *ti ul* "for Atole" (Figure 6a), (Kerr No. 4378, von Winning 1986: No. 152) *ti tsih* "for the fresh (drink)" (Coe 1973: No. 58 and No. 64), or *ti sakha* "for Atole". (Hellmuth, Dumbarton Oaks photo Archive No. 148). When the prepositional phrase has two or more glyphs, a preposition is always prefixed before the first glyph. In these more elaborate prepositional phrases the name of the beverage

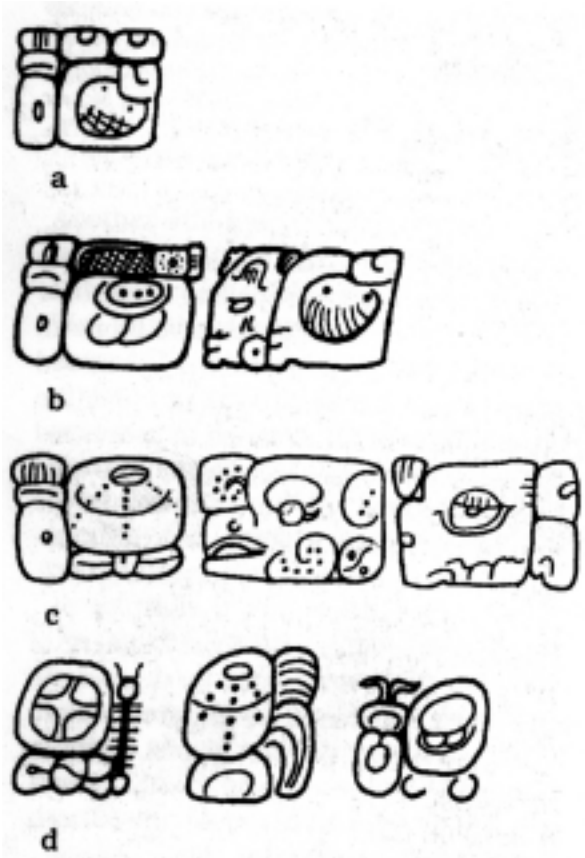

Figure 6. *Examples of prepositional phrases, describing the contents held by the vessels.*
a. ti ul *"for Atole", (Kerr No. 4378);*
b. ti ch'ah ul *"for bitter Atole", (Kerr No. 3199);*
c. ti tsihil kakaw *"for fresh Cacao", Vase in Berlin Museum für Völkerkunde (Eisleb 1969: 19);*
d. ti k'an tsihil sakha *for yellow fresh Atole", (after Tate 1985: Fig. 8).*

is represented by the last glyph. while the other glyphs spell adjectives that qualify the drink as "fresh", "sweet", or "precious". Examples for such extended prepositional phrases are *ti ch'ah ut* "for bitter Atole" (Figure 6b), (Kerr No. 3199) *ti tsihiL kakawa* "for fresh cacao" (Figure 6c), (Coe 1973: No. 55, Coe 1982: No. 30, Tate 1985: Fig. 3, Eisleb 1969: Fig. 19), and *ti k'an tsihil* sakha "for yellow fresh atole" figure 6d) (Tate 1985: ft 8).The Chocholá ceramics correspond to other ceramics in that vessels with rounded or globular interiors were designed for Atole, and tall-sided vessels held other drinks, like Cacao (Houston, Stuart and Taube 1989).

The glyphs that follow the prepositional phrase constitute the end of the Chocholá PSS. Much less is known about this final segment of the PSS than about the other ones. In its most complex form this segment is composed of five glyphs. 'Ihe first glyph is Coe's "Rodent Bone-, a glyph now deciphered as *chak chok*. Without the *chak* "great. red" prefix. this title is very common in the inscriptions as a reference to young lords. *C'hok* means young and 'unripe" in the Cholan and Yucatecan languages and is often used to refer to members of the elite before their accession to power. With a prefixed *chak* this title is very often found in the PSS, but only rarely in stone inscriptions. Though we can read both parts of the title, the specific meaning of the combination of the word *chak* "red" before *ch'ok* "unripe" is not known. In inscriptions from Piedras Negras and Xcalumidn, *chak chok* is sometimes employed as a title by sculptors and artists. When *chak chok* is used in Xcalumkin, it precedes the individual name of an artist (Figure 7b). This syntax is paralleled by the Chocholá PSS, where the glyph next to *chak chok* also is a name glyph (Figure 7c). Next to this nominal glyph we often find the "cahal- title first recognized by David Stuart for subsidiaries and minor lords (Stuart 1983). It is a very common title in the Usumacinta drainage and in Yucatán. In contrast to the Southern Lowlands, the "cahal" title is never spelled with its head variant TIO04 in inscriptions from Yucatán and in the Chocholá PSS. Unfortunately, the exact meaning of this title is not yet known, because the reading of the first sign (T630) still is in debate.

The fourth glyph in this sequence of names and titles is a syllabic spelling for *u yul* or *u yulul* The prefixed possessive pronoun *u-* marks this glyph as another

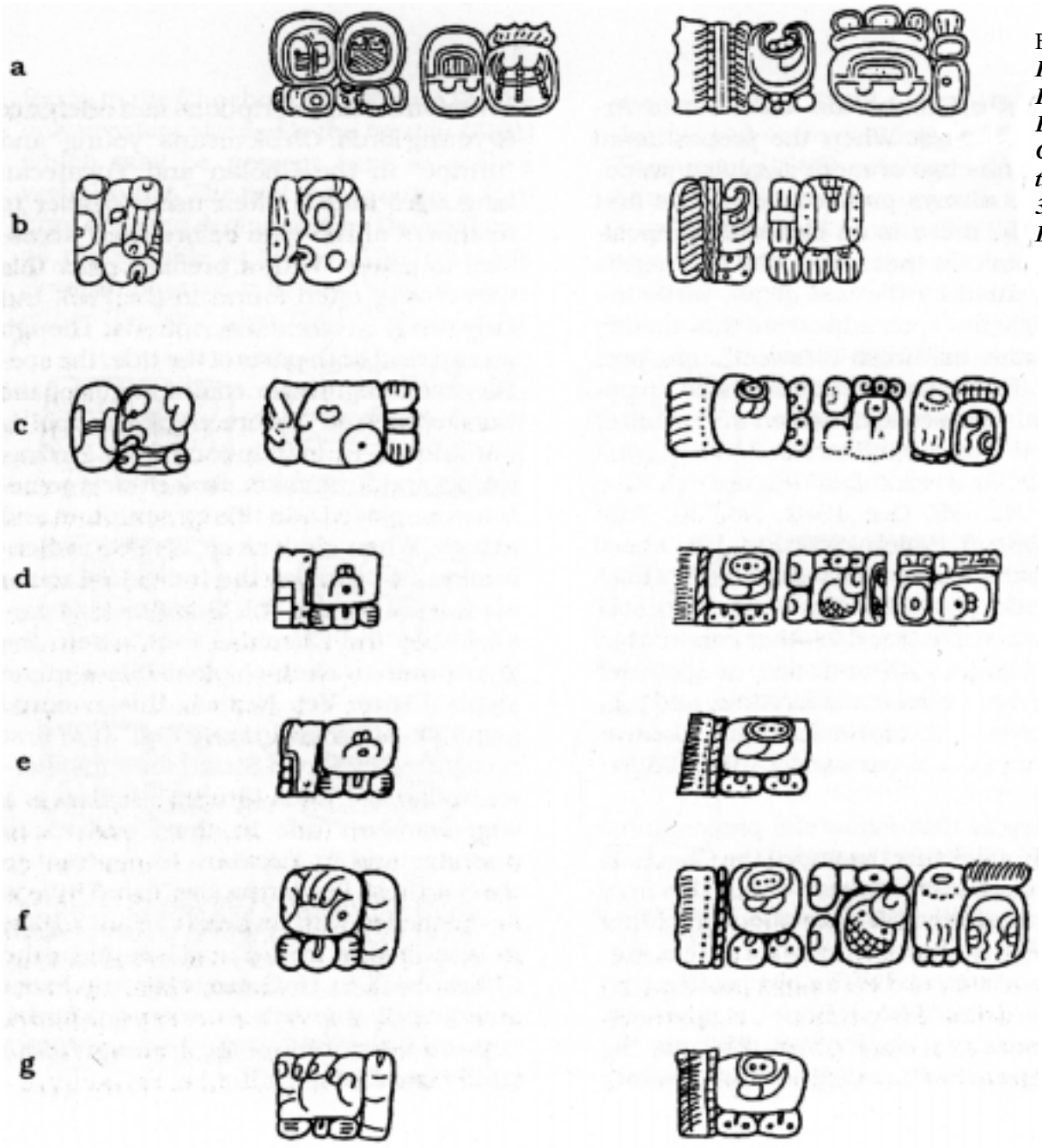

Figure 7. *A* ***comparison of title sequences from the Chochola PSS and hieroglyphic texts from Xca1umkin. a.Xcalumkin, Hieroglyphlic Group Column from South Building, North Entrance*** *(after* ***Pollock 1980: Ag. 739); b. Xcombec Column,*** **C5-D6** ***(after Mayer 1984: Plate 77);*** **c.** *Vessel* ***in the St Louis Art Museum; c. Kerr No. 4378; e. Kerr No. 3199; f. Pearlman No. 29 (Coe 1982:*** 63); ***g. Vessel*** *in* ***the Berlin Museum Volkerkunde (Eisleb*** *1969:* ***1 9).***

possessed noun. The noun itself is *yul* or *yulul* (the-*ul* ending is often attached to possessed nouns in Yucatec), a word which is translated as "polish' or "smoothness" in the Cordemex dictionary *yul* (bruñido; bruñimiento, lisura", Barrera Vasquez 1980: 982).

The last position in the final segment of the Chocholá PSS is held by the *bakab* title. In monumental inscriptions *bakab* is always one of the last glyphs within a nominal passage. It customarily follows Emblem glyphs and is often paired with the *Batab/Makuch* title.

Unfortunately, the syntactical structure of the glyphs following the prepositional phrase is anything but clear. The last two glyphs, *u. yulul bakab* may translate as "the polish of the *bakab". This* could be interpreted as a reference to the vase, if *u yulul* is another descriptive term for this type of ceramic, emphasizing the smoothness of the surface, a noted feature of the Chocholá style. The *bakab* title could re-

fer to the royal owner of the vessel.

Another still inscrutable problem is the interpretation of the variable nominal between *chak chok* and the "cahal" title. Was this the signature of the artist, or the name of the owner of the vessel? In hieroglyphic inscriptions from northern Campeche and Yucatán much emphasis is given to the names of artists and sculptors. Especially in the texts from Xcalumkin and neighboring sites we find many references to scribes which are structurally similar to the title phrases of the Chocholá PSS. In these texts the signatures of scribes are introduced either by the *lu*-bat glyph which was already discussed above, or a glyph which reads *u wohol* "his glyph". The actual name of the scribe usually consists of one or two glyph blocks. Almost all scribes signatures from Xcalumkin and other sites in that region have the "cahal" title (Figure 7a, b). Obviously the scribes of Xcalumkin were not only of fairly high social status but pertained to the royal families. Scribe's signatures play an extraordinary role in the texts of Xcalumkin. It is almost impossible to distinguish between the names of rulers and those of scribes. The title *its'at,* artist, learned one- (Figure 7a), which sometimes concludes scribes signatures at Xcalumkin is another expression for the high esteem in which scribes were held in Xcalumkin.

The problem of whether the name glyph is that of the owner or that of the artist cannot yet be resolved. Interestingly, a few vessels share the same name glyphs: Kerr No. 3199 and Kerr No. 4378 share a name which probably reads *cholom* (Figure 7d, e), a vessel in the Pearlman collection (Coe 1982: No. 29), a Grolier vase (Coe 1973: No. 57) and a vase in the Berlin Museum für Völkerkunde (Eisleb 1969: 19) share a glyph which consists of a hand and the syllables *ma* and *le* (Figure 7f, g). Were these vases made for the same lord, or were they formed by the hands of the same artist?

Unfortunately, none of the name glyphs are found in stone texts from Yucatán. If one of the name glyphs could be located in a monumental inscription from a site somewhere in Yucatán we would probably be able to define his status, and, perhaps even more importantly, could locate the area where the Chocholá style originated.

THE PROVENANCE OF THE CHOCHOLA STYLE

In publications of Chocholá style ceramics their origin is generally given as Yucatán. It is true that the first two vessels of this style appeared in Yucatec collections. However, not one vase, nor even a fragment of a Chocholá style vessel has ever come to light in one of the archaeological excavations in the Yucatán peninsula. This suggests that Chocholá style ceramics were not manufactured in Chichen Itzá, Uxamal, Kabah, Oxkintok, Jaina or along the coastal line of Yucatán, where archaeological excavations had recorded ceramic sequences (Tate 1985: 132), nor were they traded to these sites. Carolyn Tate thinks that the style was produced by a ceramic workshop which was cognizant of Peten iconography.

Based largely on epigraphic evidence, I suggest that the Chocholá style was manufactured in northern Campeche, or more specifically, in the vicinity of the site of Xcalurnkin, Campeche. The region roughly defined by the archaeological sites of Xcorralche, Cacabbec, Halal and Ichmac is well known for an extraordinary large number of inscribed monu-

ments. Of all Puuc sites, Xcalumkin certainly exhibits the largest sum of Petén traits. It is one of the few sites on the Yucatán peninsula with a complete Initial Series date. The dated monuments from Xcalumkin and adjacent sites fall in the period between 9.14.0.0.0 and 9.17.0.0.0, when Maya sites in the Petén were flourishing. The buildings which are associated with these dated monuments in Xcalumkin and its surrounding sites can be attributed to the "Early Puuc" style (Pollock 1980, Andrews 1986).

Figure 8. The name of a scribe from Xcalumkin on a Chochohla vessel a. Xcalumkin, Initial Series Building entrance to east room, J1-N1 b. the same name on a vessel in Chochola style.

Dedication texts syntactically parallel to Chocholá PSS constitute the majority of texts from the Xcalumkin area. Almost every text from Xcalumldn, Xcocha, Xcochkax and nearby sites begins with a dedication phrase. Very often the sculptors and artists who carved the texts are named in the inscriptions, usually with the same sequence of titles *(chak chok* - "cahal") known from the final segment of the PSS on Chocholá ceramics. On one of the most beautiful Chocholá style vessels, which was drawn by George Stuart around 1959 we find not only a Short Count date 9.16.14.0.0, but also names and titles of an artist who is also recorded on a Lintel from the Initial Series Building in Xcalumkin (Figure 8).

Furthermore, there is a variant for the *u* sign on Kerr 3199 and Kerr No. 4378 which consists of two crossed bands. The same sign occurs as an u-sign on capitals and glyphic fragments in the Hecelchakan museum (Mayer 1984: Pl. 89, Pl. 97) which certainly were taken from sites in tile southern Puuc region of Campeche.

The Xcalumkin region thus could well be the area where the workshop which produced the Chocholá style was located. Regrettably, no archaeological work has ever been initiated in this area. Scientific excavations in Xcalumkin or one of the other sites in that area would certainly yield many breathtaking discoveries. They could help to investigate the role of Xcalumkin as an intermediary between the Southern Lowlands and the Puuc.

Dieter Eisleb provided me with detail photographs of a Chocholá style vessel in the Berlin Museum für Völkerkunde. Barbara and Justin Kerr not only allowed me to use their photographic archive but also sent many rollout photo graphs of Chocholá vessels on which this study is based. Many ideas in this paper were shaped in discussions with Barbara MacLeod.

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Essays Continue on Next Page

THE GOD N/STEP SET IN THE PRIMARY STANDARD SEQUENCE

BARBARA MACLEOD

INTRODUCTION

The names God N" and "Step" were given to TI 014a/ 10 18a and T843 by Michael Coe (1973) In his vanguard study of the Iconography and hieroglyphs on Classic Maya polychrome pottery. Coe did a thorough structural analysis of the Primary Standard Sequence (hereafter abbreviated as "PSS") which demonstrated its highly predictable syntax. In the past few years that syntax has become a gateway to decipherment. As an early advocate of the work of Yuri Knorosov, Coe also argued for a strong phonetic component in the Maya script. Subsequent research has shown that the PSS, while rife with head variants, calligraphic ornamentation, and unique forms, is in large measure phonetic.

THE SYNTACTIC ROLE OF GOD N/STEP

Although Coe (1973) was the first to posit that God N and Step were probable allographs in the PSS, it was Stephen Houston (n.d.) who observed in both the Classic inscriptions and the PSS an interpenetration between the T1014a God N and Step (T45.843) suggesting identity or equivalence (Fig. Id, 2d). With one curious exception known to me (Fig.3), they do not co-occur.

Figure 1. *Examples of God N from the PSS:*
a. R&H 1981, #181 (N. Grube drawing),
b. Kerr #2352,
c. Kerr #1892,
d. Kerr #1837.

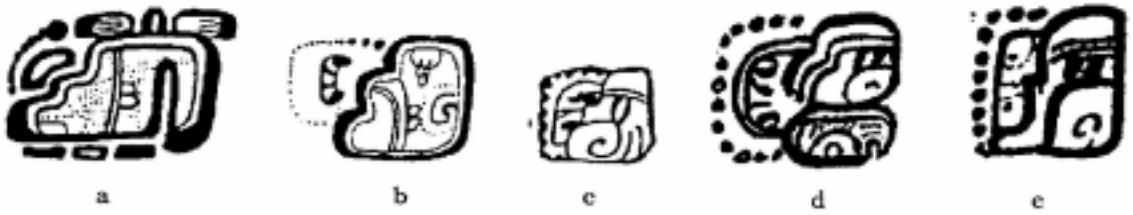

Figure 2. *Examples of Step from the PSS:*
a. Kerr #3067 (N. Grube drawing),
b. Coe 1982, #38 (N. Grube drawing),
c. Coe 1978, #14,
d. Kerr #4388,
e. Kerr #3744.

Figure 3. *Highly unorthodox PSS including God N- Step sequence; Kerr #1921.*

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Schele (1982: Chart 17) has glossed God N as *was dedicated" due to its function in house and monument dedications, in phrases of the form "was God N-ed his house" (Flg.4:b,d). God N or Step may also be paired with the **lu**-Bat verb (Fig.4:a-c), glossed as "carving" by David Stuart (n.d.a and 1989).

The PSS function of God N and Its Step allograph has been more elusive, in part due to the opacity of the PSS "introductory formula" (a term suggested in Grube, 1986) itself (Fig.5). While the God N/Step set is sometimes absent from the introductory phrase, It is a common_component When present, God N/Step may be followed by **u-ts'ib-naha(l)** "its writing" (MacLeod, n.d.a; Stuart, 1989) or its Bat-C-VI alternative (Flg.6:b-d); it may also be followed either by **y-ich** "Its writing surface" (Fig.6a,e) (MacLeod, 1989a) or by W1ng-Quincunx, read **y-uch-ib** "his drinking cup" (MacLeod and Stross, in press; Stuart, 1989); see Fig.7. In one short PSS ending with **hich** (the incorporated form related to y-ich), God N takes the **naha(l)** suffix which often marks **ts'ib** as an antipassive, sometimes nominalized verb (Fig-8). Several epigraphers have noted the obligatory presence (with rare exceptions) of **u**- on the **ts'ib**-stem when God N/Step precedes it The u - 3s pronoun is one marker of a nominalized stem, and here it signals that God N/Step is syntactically a verb whose subject is "writing". Within the introductory phrase, the position of God N/Step is last, following Initial Sign and Flat Hand, if the latter appears at all (see Figs. 5 and 6).

Figure 4. *The God N verb in sculptors' signatures and in building dedications:*
a. Yaxchilan L. 26 (I. Graham drawing),
b. Yaxchilan L. 25 (I. Graham drawing),
c. Yaxchilan L. 24 (I. Graham drawing),
d. Copan, bench from Structure 9N-82 (L. Schele drawing).

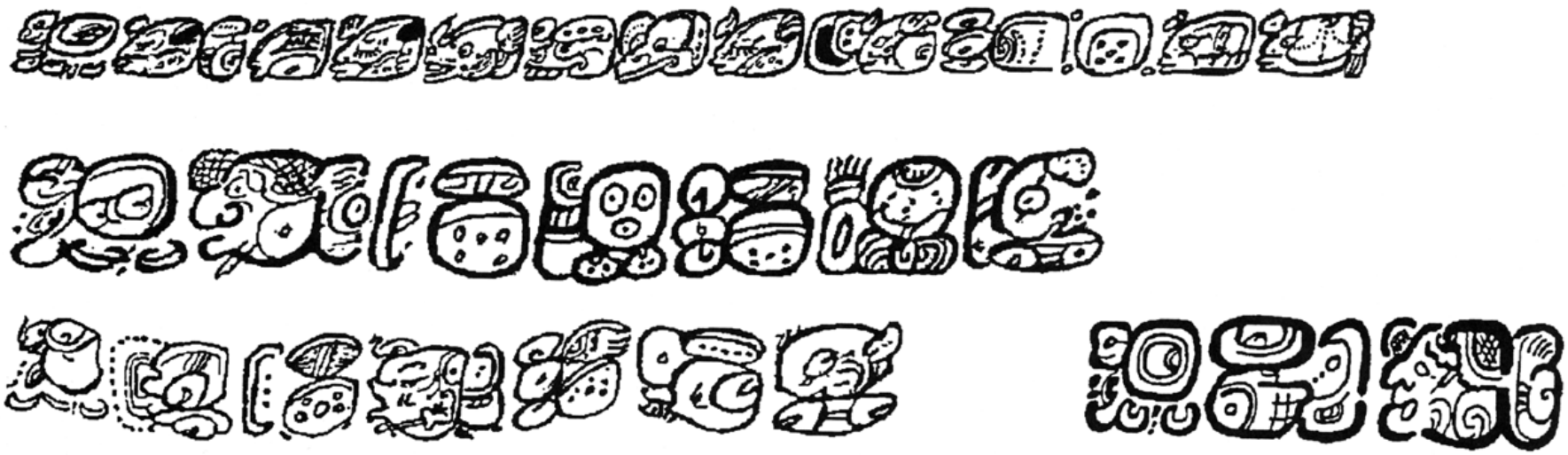

Figure 5. *An "introductory formula": Initial Sign -Flat Hand -God N (Hellmuth 1978, #197; N. Grube drawing).*

Figure 6. *Examples of the PSS demonstrating the syntactic niche of God N/Step: a. Kerr #4357: Initial Sign -God N* ***-yich -u*** *-Bat* ***-bal -u -hay*** *-(y)-****uch'ib -ta -tsih****, b. Kerr #3743: Initial Sign -God N* ***-u -ts'ib -nahal -y-uch'ib -ta -tsih -chak -ch'ok****, c. Kerr #3384: Initial Sign -Step* ***-u -ts'ib -nahal -y-uch'ib -ti -ul ch'ok****, d. Kerr #2206: Initial Sign -God N* ***-u*** *-Bat* ***-bal -y-uch'ib -ta -tsih*** *-(ya?)* ***-te'el -kakaw****, e. Kerr #2704: Initial Sign -Step* ***-yich -y-uch'ib -ta -y-ut-al*** *-?* ***-kakaw****.*

Figure 7. *A short PSS illustrating Step-Wing Quincunx sequence; BLN/DUMA 22.79.2 (D. Reents Budet drawing)*

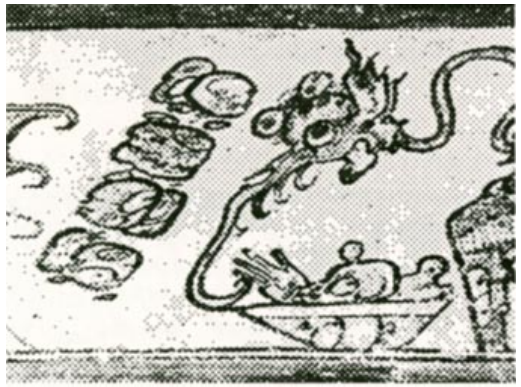

Figure 8. *Vase with a Short PSS: Initial Sign-God N* ***naha-hich-*** *Kerr 1080*

SYLLABIC STRUCTURE AND PHONETIC COMPLEMENTATION

In the PSS, God N (Figs. 1,3,5,6) often takes suffixed or infixed T17-phonetic **yi,** as identified by David Stuart (1987). The suffixed **yi** is less common in the inscriptions. Occasionally the suffix Is not **yi** but one of the signs of the **hi**-set, also identified by Stuart (F1g.Ib,4b,6d). In a few cases Fig. 1d), the T45 prefix which is obligatory on Step is prefixed to God N. I regard T1014 (and T1018a) as distinct from the array of head variants of pa (IB86).

Early Classic forms of Step may include "stone-markings" (Fig.2b); later forms typically include an infix which resembles T17 (Fig.2:c-e); in fact, some forms of Step differ only slightly from theT575 main sign variant of T17 (Fig.9b). Occasionally, T17 will be suffixed to Step (Fig.2d). T45 or a variant (and much variation exists) is always prefixed to Step. Rarely, T74 **ma** may be superfixed (Fig.2a).

Nikolai Grube (personal communication, 1988) has noted a rarer collocation (Fig.10), not found in the inscriptions, which may replace God N or conflate with it. it seems to be a regional (Altar and Ik-Site) variant. This glyph, while having some unique features, also shares certain attributes with the standard God N, including the yl suffix. Although it has eluded decipherment thus far, the present study suggests a possible reading which will be addressed

a. b. c.

Figure 9. The Step in dedication phrases: a. Tikal St.31, b. Copán Altar Q, c. Nim LiPunit St2.

a. b. c.

Figure 10. *A God N allograpgh whioch may replace or conflate with it. a. kerr 2914 (N. Grube drawing), b. "Cosmic Plate" Schele & Miller 1986 pl.122b (N. Grube drawing, C. Kerr 4387*

later.

To my knowledge, Step does not occur outside the PSS and "dedicatory" contexts in the inscriptions. The sign is distinct from the T515 **otot** platform, elsewhere phonetic **chu**, in both morphology and environment. God N is less restricted than Step, but it can hardly be regarded as a free phonetic sign. The head variant of Five is God N, but in that context he wears a 1548 "drum" headdress topped by a vegetal motif (Fig. 11). God N (as T1018a; see Fig. 12) also appears in Piedras Negras titles in substitution with T64 (or 94):626, the turtle shell with net superfix. A **k'an** cross is present in this collocation, infixed into either the net or the turtle shell (Fig. 13:b, c). It is noteworthy that this turtle shell glyph Is a dedicatory verb on a step of Copán Structure 4 (Fig. l3a; Schele, 1987b). This proves its

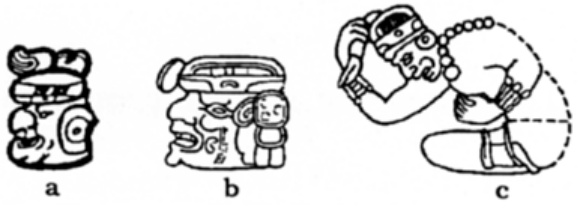

Figure 11. *Head variants of the number five: a. Palenque, 96 glyphs (L. Schele drawing), b. Quirigua St. J., c. Copán, St. D.*

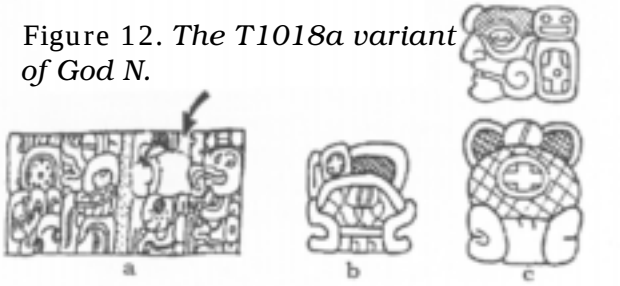

Figure 12. *The T1018a variant of God N.*

Figure 13. *The Turtle shell as verb (a) and title (b,c). Both substitute for the God N head. a. Copán, Temple 4 step, b. Yaxchilan L. 37, c. Piedras Negras L.2.*

equivalence with the verbal God N. As has been observed by Coe (1973), the turtle shell is a common feature in names for God N, as is the T548 "drum" sign (Fig.14d).note-1 Coe (1973) and Lounsbury (Schele and Miller, 1986:p.6 1) have shown that a name for God N was *Pawahtun,* this name appears in Yucatecan deity inventories and in Landa's (1978:61) discussion of Yucatecan New Year rites. We win find that Landa's text offers an important clue to a reading for the God N verb.

A STRATEGY FOR DECIPHERMENT

One thing seems abundantly clear, **pawahtun** cannot be the reading for the verbal form of God N. Mayan verb roots are monosyllabic, with occasional bisyllabic exceptions. representing borrowings and/or frozen derivational morphology. **pawahtun** cannot be analyzed as a root plus derivational morphology. Several epigraphers, myself included, have investigated the possibilities of ***pa(h), *paw, and *pay;** for me this has been a cul-de-sac.

The root for "five" is *ho'* in most Mayan languages. We may assume that "five" in either bar or head form was read ho' in the writing system. Is It possible that *unqualified" God N (without infix or head ornament) had a phonetic value close to the word for "five" outside numerical contexts?

There Is evidence that Four reads *kan* or *chan* outside numerical environments (Schele, personal communication, 1985). *kan* and *chan* are the Yucatecan and Cholan words for *four", respectively. I have observed Eight and Ten in non-numerical contexts suggesting that they be read **wa-xak** "standing* and **lah** "completion*.

PHONETIC CLUES IN MAYA HEAD VARIANT NUMERALS

Does phonetic complementation occur in the head variants of numerals? Martha Macri (n.d.) argues for phonetic complementation via homophonic or near-homophonic elements which operate as mnemonic cues in a manner recalling Quiche day-name auguries

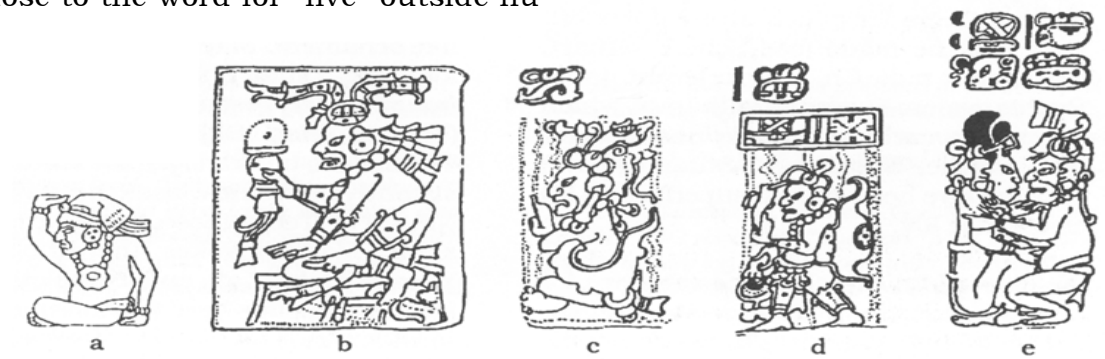

Figure 14. *God N: a. Copán bench from Structure 9N-82 (L. Schele drawing), b. Dresden 48a, c. Dresden41b, d. Dresden 37a, e. Dresden 21c*

Tedlock 1982). But there appears to be another set of cues based upon a symbolic association, noted by Thompson (1950:93), between the thirteen numbers and thirteen of the day names, beginning with the pair One/ Caban. This aligns Ten with Cimi, Nine with Chicchan, and Seven with Akbal among others for which an independent case may be made (see Schele, Stuart, and Stuart n.d., Ch. 5 for relevant data). By this system Five pairs with Imix which outside its cartouche reads **naab** "water lily; Schele, Stuart and Stuart (above) view the Five head variant superfix (Fig. 11) as a water lily.

We may add a sketch of the evidence for phonetic complementation. Macri presents a case for One (cued by the female head **na**, to which I add na'k'ab "thumb" and the thumb allograph for One) as *nah* "first" in Cholan. For Three (Yuen ox/Chln ux) I would suggest (1) a possible relation between the Ik' infix and ox "breath" in Yucatec, and (2) the dotted circle head ornament as the essential part of T280, identified by Knorosov (1982:52) as **o**, and now widely accepted. With respect to Six and its axe-in-the-eye, Jorge Orejel (in press), in reading the Axe glyph as **ch'ak.** follows a suggestion by Richard Johnson regarding a "crossover between hands" in Maya counting from five to six; **ch'ak** means both "chop" and "cross over' in Yucatec. This would be an indirect mnemonic cue. Macri notes the close similarity between T130 **wa** and the head ornament of Eight (Y'ucn *waxak*/ Chln *uxLxAk);* it is noteworthy that some examples of Six (*Y'ucn wak/ Chin wAk*) also have this **wa** like ornament. Macri observes that words for "nine" *(Yuen bolon/ ChIn bolon/ TzIn balun)* closely resemble words for "Jaguar" (*Yuen batam/ ChIn bahlum, p'ahram/ TzIn bolom bahkui);* Jaguar features consistently mark the Classic head variant of Nine. For Ten, whose head variant is a skull, Macri invokes the Cholan and Yucatecan *lah* "all, end, completion" as a phonetic cue for "ten" (*Yuen lahun/ ChIn lAhun).* And finally, for Twelve, whose notable feature is a T561 Sky sign in the forehead, Macri notes that the Chol word is lahchAn, "sky" in Cholan is *chan.*

Having seen that phonetic cues are a common feature of numeral head variants, we may return to Five.

Epigraphers generally agree upon an identity between God N and the God of Five. Outside the verbal context, both may have T548, the "drum" logograph, in their headdresses (Fig. 14:b,e). Both are aged male deities. Macri has suggested that near-homophony between *hab* (one extant reading for T548) and *ho'* explains the use of the drum sign in the headdress of Five. In another study I have argued (MacLeod, n.d.b) that we may move one step closer and read T548 as *hob/hom* instead of (or in addition to) *hab.*note-2

To these peregrinations in quest for evidence for God N as **ho**(C) we may now add a straightforward identification by Landa (1978:6 1) the "South *Pauahtun*" was called *Hobni*l He presided over the Kan years; he was also called *Kanal Bacab and Kan Pauahtun.* Barrera-Vásquez (1980:215) tells us that *hobonil was* the principal *bakab and* the patron of beekeepers; hobon is "hollow cylinder", "beehive; the traditional hive was a hollow log. The Yucatecan words *hom* "trumpet" and *hub* "conch shell" (an object with which God N is often associated) are part of the constellation, but not as cognates with *hobon.*note-3

Let us reconsider the Classic (titular and verbal) substitution between the God N head and the net-turtle shell collocation with its Wan infix I suggest that the Wan infix specifies the ***south*** God N as the ref-

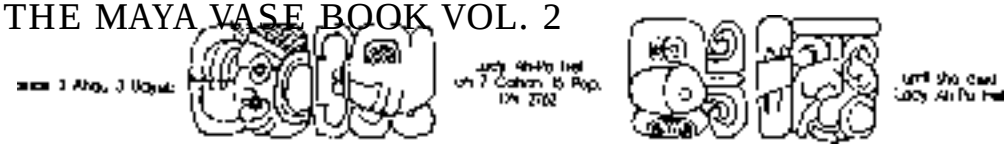

Figure 15. *"seating as **hoyah**" restatement of a God N event:Palenque, Tab of Inscript. west, R3-R10*

erent, and that he was called Hob(-) as well as (directionally generic) Pauahtun in both the Classic and the Postclassic.note-4 His head glyph (both variants) may have been logographic **hob**', also phonetic **ho** (final b' is a weak consonant).note-5 But this sign does not substitute for T607 or T672, now known to be **ho** (Stuart, 1987, Schele, 1989b). Even as a phonetic CV syllable, it may have been reserved for "dedications" via an iconic association present at its inauguration.

A READING FOR GOD N

The **ho-yi** sequence implicit in the T1014[17].(17) collocation yields **hoy(i)**. There is independent phonetic evidence for a **hoy(i)** reading. On the Palenque Tablet of Inscriptions West at R4, a God N verb is followed immediately by a second verb reading **na-k'a-wa**; the name Lady Ah-Po-HeI comes after (Fig. 15). The same event is restated following a Distance Number. The restatement reads **chum-ily(a)-ta-ho("five-bar")-ya-h(i)**: '(she was) seated as the **hoyah".** The **na-k'a-wa** sequence may cue nak, a root in Yucatec and Cholti meaning arrive", *join (with) another object or place (literally or metaphorically)"(BV.-555; Morin. 1935v.5 *(ar*rimari) The God N event, as **hoy(i),** forms a couplet with **nak'wa;** the subject is Lady Ah-Po-Hel. We must assume that it is she who 'God Ns"; the reprise is her "seating as **hoy-ah",** which is a likely verbal noun.note-6 A **ho-ya-** segment also appears as a title preceding "**k'in**-vase" on Yaxchilán L10 at C5a; there no God N event is present.note-7 *hoy (*hVC)* In Yucatec appears in the entry *ah-hoy ba'al* "stone mason" (BV 237). *hoy-bes-* (BV.236) means "whitewash a wall", "seal the surface of a pot". "use for the first time". Importantly, *hoy-bes* also means "bless a church". From these entries, all involving buildings and pottery, I suggest the core meanings "ritually inaugurate" (tv.) for *hoy-bes* and "ritually debut" (i.v.) for *hoy.* The completive stem would then be hoy-L.note-8

For the PSS one might be tempted to Invoke "seal the surface of a pot". The *hich* is a prepared surface, and the *hich* can "God N", as can the vessel. But the writing or carving can "God N" as well, and in those cases, which are far more common, the "debut" meaning is appropriate. This is also true for building and monument dedications.

Since God N may take the **-naha** sequence found with the **ts'ib** stem. This raises the possibility that **hoy* was also a transitive root. Its ambiguity (vis-a-vis transitivity) strengthens that possibility.note-9

READING "STEP": THE PROBLEM

The relationship of God N to Step (Figs. 1,2,4,9) suggests that they are semantically identical. Phonologically, they must also be very similar if not identical.

Because the Step main sign CI7843 and variants) appears restricted to this environment, there is no way to test readings for it. We have seen that some examples of It are very similar to TB75, a main sign **yi**.note-10 But unequivocal T575 does not, to my knowledge, replace T843. As with the God N verb, the **yi** infix (and occasional suffix) points to a CVy root. The occasional prefixation of T45 to God N suggests either redundant phonetic complementation (whose inverse corollary would now be a **ho(y)** value for T45) or a vowel modification of God N. I have explored the possibility that the T45 prefix is either **ho** or **hoy** and found that avenue only partially productive. note-11

THE ROLE OF T45 IN GLYPH D OF THE

LUNAR SERIES

The above circumstances suggest **hu** for T45. This is the only alternative which fits the conditions of semantic identity and near-homophony with **hoy**. and a CVy root. But **huy* as a possible Cholan cognate with Yucatec *hoy* "debut" must be reconstructed based on the Yucatec word. note-12

T45 is found in one other primary environment: Glyph D of the Lunar Series. Mere, as T45:82:126 or T45:WormBird:126 (Fig. 16) It must refer to the inception of the current lunation. Many epigraphers have considered T82 and WormBird Identical to T24 **li** in that they all replace one another widely. Testing T45 as **hu** in Glyph D yields **hu-li-(ya).** The root *hul* "arrive" is found in Yucatecan and Western Cholan with a completive form *hul(-l)* (see BV-.243, Aulie and Aulie, 1978:69); *hul-uy* is "arrived" in Eastern Cholan (MacLeod, 1987: Fig. 4). If Glyph D is understood as "the count since it arrived (the moon from its dark phase)". the hu reading for T45 works rather well.

The T45:**lu** Glyph D verb appears in three other contexts documented by Schele

Figure 16. *The "T45" form Glyph D: a. Copán St.A, b. Copán HS, Date 1*

(1982: Chart 11,26). Two of these are in texts of Naj Tunich Cave; the verb is followed by a toponym which may name the cave as *ek'-a[k)-kab "black* hollow earth". An Emblem Glyph nominal follows this (Fig. 17a). "he arrived **[hul(i)]** at the cave ... *ahau* of X place" fits the context The third example (Fig. 17b) appears on the West Hieroglyphic Stair at AS at Dos Pilas, and is followed by a toponym naming Lake Petexbatun, and then by the name of the ruler (Schele, personal communication**,**

Figure 17. *The "T45" Glyph D verb in "arrival at place" contexts: a. Naj Tunich Drawing #34 (Stone Cat.), b. Dos Pilas HS west.*

1990, citing work in progress by Houston and Stuart). Here, the nominal subject arrived **[hul(i)]** at Lake Petexbatun seven days after a war event ("war" and the DN appear earlier in the text).

There are three common forms of Glyph D (Figs.16,18):(l) T45:82, (2) T218a:(24/82).181 and (3) T683a:(24/82). 7218a, often with different affixation including a bauble hanging from the finger, is a common Period Ending verb (Fig. 19). The bauble is absent in the Glyph D form. Two other forms of Glyph D, God C-with-sight lines and Birth Frog, are much less common. T126 as the PEI is usually present with all forms. In PE contexts, the *completion "hand frequently has suffixed T17 **yi** (Fig. 19a) rather than T(24/82:)181 (Fig. 19b), but one unusual variant from Copán St.4 (Fig. 19c) has a perforator in the hand; this is reminiscent of the Calabtun superfix (Thompson, 1950: Fig. 26: 1-7). Might the perforator signal a **hul** reading for the "completion" hand? hut means "perforate in many Mayan languages. There is additional evidence supportive of **hul** for the T218a hand in "arrival" contexts. note-13

A final clue to Glyph D may lie in the rare

Figure 18. *"Completion Hand" and "Moon Sign" forms of Glyph D: a. Piedras Negras L.2. b. Piedras Negras Negras St.3*

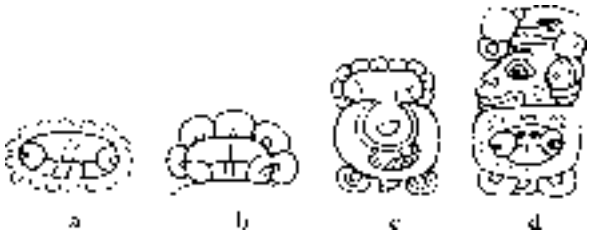

Figure 20. *T266a in rare forms of Glyph D. a.,b., T266a: c. Yaxchilan L.26; d. Copán St.3, east*

substitution of T266a into Glyph D (Fig.20:c,d). This sign is under consideration as **hu** by Grube and Stuart (Grube, personal communication, 1989) due to several productive contexts. note-14 Some of the less common contexts for T45 may work with **hu**; others have yet to be explained. note-15

RETURN AND RUMINATION

Having paced the comers of the world, we may return to Step, and with equal measures of confidence and caution, plug in **hu**. This yields huy-I "debuted" if the T843

Figure 19. *The T218 "Completion Hand" in Period Ending contexts: a. Palenque, 96 Glyphs (L. Schele drawing), b. Copán St.13, c. Copán St.4.*

main sign Is **yi**; if it is not, then the patterns of substitution between Step and God N make considerably less sense. Where God N has the T45 prefix, I suggest (proceeding from **hoy** evidence above) that this cues a vowel modification. In some cases, therefore, God N may be **huy-i**. Where Step has a **ma** superfix, a middlevoice marker maybe present.note-16 As has been noted, **huy* "debut" must be reconstructed for Cholan. But this is not the only uncertain ground beneath the God N/Step set If the PSS represents a Cholan language which had **huy* "debut", we must ask why Cholan scribes wrote *hoy* at all. One clue (note #3) may be seen in Colonial Tzotzil *hob* "breath", *hub* "blow (on fire)". In two modern Tzotzil communities *hob* survives as "steam" (Laughlin, 1988:341,342); it has otherwise dissipated. **hob is* the Proto-Tzeltalan root for "blow on a fire". inherited from Proto-Mayan. but Cholan **hub* has displaced it, and in the span between Laughlin's two dictionaries we see its last gasp. A better clue lies in the following constellation: ibte' is "ladder" in modem Chontal (see note *#10), while* other Cholan languages have ehb. ib-el "base of house/mountain" in Tzotzil looks like a loan from Cholan, but in both Chol and Chorti, (*)y-eb-al "base" appears. These pairs point to a mottled linguistic tapestry and to social directives we may never reconstruct. If the foregoing **hoy/* *huy hypothesis is correct, we must assume that across the Classic lowlands, both roots existed side by side (with variable individual or dialectal preference) with the same meaning. This is a common feature of bilingualism across language frontiers. Moran (1935: v.53) gives both che' and te' for "tree" in Cholti. Yucatec has many examples of root pairs in which one is Cholan.".note-17

This alternative remains, and it certainly has merit. Perhaps the Cholan Classic South Pawahtun was **Hub*-, and perhaps the God N verb was always read **huy(-i).** This idea, while simplifying God N/Step as a **ho(y)** reading for T45 might have done, requires more reconstruction. It conflicts with the phonetic relation seen

between God N and Five (ho' in Cholan), unless we postulate an early Yucatecan origin of the numeral head variants with subsequent embeddedness in Cholan scribal tradition. The idea also conflicts with the rationale for the association between T548 and God N, unless we again invoke a Yucatecan origin with preservation of a "venerable anachronism". More importantly, if the seating of Lady Ah-Po Hel as **hoyah** is a restatement of the God N event, that event seems best read as **hoy(-I).** But on the *Hub- side is the presence in T1018a (the usual head form of God N in titles at Piedras Negras) of "seven" in a cartouche. *huk is reconstructed as .seven" for Proto-Cholan (Kaufman and Norman, 1984: 138), and it is possible that this functions as a **hu** syllable to cue a **hub** reading, but this has as yet no independent support. In addition, one might suggest that T266a (a **hu** candidate) shares its iconic origin with the Turtleshell, which might have implications for a reading of the latter. But even if common ancestry is posited, Classic bilingualism and borrowing might muddy the water in that argument. The occasional prefixation of T45 to God N may be interpreted as complementation rather than vowel alteration. And finally, returning to the unusual allograph identified by Grube (Fig. 10), it is noteworthy that a "curl" sign much like its prefix has been read as **hu** by Bricker (1987).note - 18 In sum, one may make a reasonable case for God N as **huy-i.**

CONCLUSIONS

The readings proposed for God N **(hoy-I' and/or huy-i)** and Step **(huy-i)** are offered in a milieu of cautious qualification and much linguistic detail. Neither reading has been easy, yet the meanings "debut", "inaugurate" which these confer on the God N/Step set fit easily with what epigraphers have long surmised about them: "this building/ throne made its ritual debut; "the images and text on (the surface of) this vessel made their ritual debut. Decipherment of this pair of hieroglyphs has involved a reconsideration of the names of God N (as generic Pauahtun and direction-specific *Hob (nil)* and a hypothesis that T548 is **hom/hob,** whatever else it maybe. A review of research on phonetic and symbolic mnemonics in the head variants of numerals was needed in order to invoke phoneticism in the head variant for Five. A provisional decipherment of Glyph D (the other primary context for T45) as **hul-i, hul-ah** "arrived (the moon)" has been critical to progress on Step. Ibis Glyph D reading has in turn prompted a provisional reading for the "completion hand" as **hul-ah/ hul-uy** "arrived (its fifteenth katun)". Some codical examples ofT45 have not yet yielded to a **hu** reading, but some show promise. Other **hu** candidates T266a and Landas (second u) have entered the argument because they participate in the broader constellation of substitutions. Since each of these domains is complex, many stones still lie unturned.

The decipherment of the God N/Step set have relied as much as possible on the established rules of phonetic complementation and substitution, but the limited distribution of their main signs has called for other strategies. The logographic (or logosyllabic) component of the script carries symbolic messages, and those messages may have engendered canons of Maya scribal practice which are less accessible to us. Such rules may have restricted signs and sign variants to certain contexts regardless of their phonetic value. Maya epigraphers, have long been aware of the interpenetration of text and image. We may perhaps glimpse in God N

and Step the images of *bakab* and house platform (or mountain's foot) which underlie inauguration rites and the words created for and by those rites. If we understand a narrative scene on a vase as **ts'lb** which is brought to life, then the word which inaugurates it manifests the numen in that object. If after the unmasking of its prosaic content anything poetic remains in the Primary Standard Sequence, it will surely be found in the elusive "introductory formula".

1.Other main signs include a conch shell and T528 **tun.** GO BACK

2. The evidence for T548 as **hob/hom** may be summarized as follows. (1) Landa (1978.61) tells us that the South Pawahtun was called Hobnil; (2) the TI 28.548 collocation may include **hob/hom** "ending", both roots mean "end" in Yucatecan (BV:231; Ulrich and Ulrich 1976.105);'(3) In the Long Count, T548 commonly has -V**m** T142), rarely **mo** (T528) suffixes; T142 also appears suffixed to T548 in Uayeb (another "ending") and to T526 (which can substitute for T548 in predictable contexts) in the "color months" perhaps read "color-**sihom**"); (4) T548 is thought to be a split log drum (Kelley 1976:135); words for "hollow log" include hobon (Yucatec), hom-te' (Tzotzil); (5) HobniL the chief Pawahtun, was the patron of beekeepers, in Yucatec, hollow log hives are called hobon. these are all *jVC roots. GO BACK

3. Consider Kekchi hob- (Sedat:1 955:77), Yucatec hop"blow (on fire)" (13V: 23 1), hom (BV. 229)"trurmpet" which suggest that a Proto-Mayan *hob (*hVC rather than *jVC) existed Although there is no direct evidence for Cholan hub "blow-, from the presence of hub "blow on a fire" in Tzelalan (as well as hob "breath", "vapor, in Tzotzil;- see Laughlin 1989. Vol. 1.341) we may infer that Cholan once had this word **yu-b(u)** (y-ub<*u-hub) spellings (following Grubes reading of T21 as **bu**) on Kerr # 1728 demonstrate that the word meant "trumpet" for Classic IK' site residents. The derivative Yucatec hub (BV:238). Lacandon huub "conch" (the quintessential wind instrurment) may have been borrowed from Cholan, the Yucatecan word persumably was *hob, which became hom "trumpet". Chol now has huhch (Aulie and Aulle 1978.68) "conch"--a word for which Brian Stross personal communication, 1990) has suggested an underlying form *hub-ich. This employs a noun suffix which is productive in Tzeltal and which appears on isolated Lowland words, such as Yucatec k'in-ich and tun-ich. Glyphic evidence gathered by David Stuart (Grube personal communication, 1989) suggests that two Classic carved conch shells were "name-tagged" as **u-hu-chi** (with T266a. as the suspected **hu**); thus, any development from *hub-ich would have to antedate these conch shell texts. GO BACK

4. The five-bar which is prefixed to codical God N names may signal that this *Pawahtun* is *Hobnil*; perhaps the :four" prefix on other examples cues can signal, the East *Pawahtun.*

5. The association between God N and (1) the conch (*hVC roots), (2) :"five" (an *jVC root), and (3) the hollow log or drum and later beehive (*JVC roots) suggests that the h/j merger in Cholan may have been a fait accompli by the Early Classic. The writing system reflects this leveling here, as it does elsewhere (MacLeod, 1989). Although Postclassic Yucatecans had the h/j distinction in initial position, their borrowing of the God N program from Cholans could explain their perpetuation of minor linguistic heresies. GO BACK

6. Cholti (Moran 1935: a.21) had agentive nouns of the form, ah-(verb) which are based on intransitive roots. GO

BACK

7. The association of this vase, common in female titles, with **ho-ya** presents the possibility that ho(o)y (*JVC in Yucatec, hVC in Kekchi--a Cholan loan?) -"pour, sprinkle liquid"- might be the referent here (BV.-236, Sedat, 1955:77), since goddesses pour water from vases in the Dresden Codex. GO BACK

8. This is a derived transitive stem based on **hoy* whose meaning may have been (as an intransitive root) "debut", "come out formally' or 'be inaugurated". It is difficult to gloss **hoy* without using a passive construction, and the **hoy-i** form suggested by the God N-**yi** (occasionally **-hi**) sequence does not suggest Cholan CVhC-a passive morphology, but root intransitive morphology. Yucatec passives may have the form, CV'VC -i (formerly CVC-bl), but the evidence for Cholan as the language of the PSS is very strong (MacLeod, n.d.a, 1987, 1989a Grube and MacLeod, in press, MacLeod and Grube, in press). GO BACK

9. In Cholan languages it is possible for some CVC transitive roots to differ from intransitive counterparts only in terms of permissible suffixes. The **-naha(l)** sequence, as I see it, is an antipassive which permits noun-incorporation by transitive roots, forming an intransitive compound stem In the **ts'ib-naha(l)-hich** case, the noun-incorporated stem may be translated as "got page-written". A translation of **hoy-naha-hich** might be 'surface-debuted" (ie. the images and hieroglyphs which constitute surface treatment were ritually awakened). GO BACK

10. A **yi** reading for T843 might find support in the notion that the sign originated as logographic **yib**: *y-ib 'base of mountain, house platform, staircase". While Kaufman and Norman (1984.119) reconstruct *ehb "ladder" for Proto-Cholan and *ehb for Proto--Mayan, they also note Chontal ib-te'. The Yucatec eb BV: 148) argues for a core meaning "steps" from which "ladder' was derived. Chontal ib-te' demonstrates that the e>i vowel shift affected this word. More evidence is seen in Tzotzil ib-el "foot of wall"/ house/ cave/ rock/ mountain" Laughlin, 1975:53), which might be a loan from Cholan, but in Chol "base" is y-e bal (AuLie and Aulie 1978.142); this is (h)ep'-ar/yep'-ar in Chorti (Wisdom, 1950.4677). In Chorti; ihp'en is "earth god" (Wisdorm 1950.476). On the Hieroglyphic Stairs of Copán and Yaxchilan y-eb-al "its stairway" is spelled. This proves that eb was the word for "stairway" at those Cholan Classic sites. *ib had either shifted its meaning or was stewarded by other speech communities, or both. The Chol and Chorti y-eb-al/ y-ep'-ar complicate the picture still further. When was a foot of a wall/house/mountain a stairway? When the referent was a house platform with two or three steps. GO BACK

11. Cholan and Tzeltalan hoy (*JVC) means "encircle. return" (A&A. 68, Laughlin, 1975:159). This is workable in relation to the cycling of the moon and other contexts for the Glyph D verb. One of these is found on Copán Altar F (MacLeod, 1989b). The problem with Cholan hoy -(en)circle (apart from its *JVC or hoy in contrast with Yucatec hoy (*hVC) "debut" is its failure to explain the **l** in the T45:24 et al forms of Glyph D. A simple intransitive completive should not have an **I** *suffix* (as in *hoy-li). For this and other reasons I now regard **hu** as a better candidate for T45. GO BACK

12. Another huy (*JVC), meaning "stir" (Kaufman and Norman 1984.1; BV-260) appears in Cholan, Yucatecan, Tzeltalan, and is reconstructed for Proto-Mayan. GO BACK

13. The "completion" hand has been read as **hom** "end" by Schele (1989) and as **lah** "end" by Houston and Stuart (Schele, personal communication, 1989); a **hul** "arrived" reading for the PE verb works well if we view "its second katun" as coming rather than going . In this scenario, the **homa** suffixes which sometimes appear may cue a future -(h)-om; they may also cue "end" in "arrived" at the end of...". hom (probably *JVC) is also "boundary marker" in Yucatec (BV. 229). Support for the T218a hand as **hul** is found in a letter from Nikolai Grube to Linda Schele dated 17 November, 1989. He notes that the 'completion hand" in its Glyph D manifestation (T2I8a: 24.181) is associated at Quirigua (Alt. L) and Naranjo (St 24 & 29) with the arrival of outsiders (as with Smoke-Imix at Quirigua and at Caracol (St. 3 twice) with toponyms. He posits that this hand is a verb meaning "arrival". He continues with observations of the T45-form of the Glyph D verb in "arrival" contexts. Later (personal communication, March 1990) he also suggests a **hul** reading for Glyph D and the T218a "arrival" verb, but does extend this to the PE verb. We have independently reached many of the same conclusions. By the present analysis, the Glyph D and "visitor" (and sometimes the PE verb) pattern reads **hul-ah** (-ah has a checkered distribution through Lowland Mayan as an intransitive suffix, but is ubiquitous in the writing system; hula means "guest" in both subfamilies). If one reads the bauble as **u:**u(h) "beads" "string beads" in Chotan and Yucatecan, the usual PE form of the verb might be **hul-u-y(i)**. -Vy is the common suffix for root intransitives in Eastern Cholan, and it appears elsewhere in the script. Nonetheless, a firm reading or the PE "completion hand" must account for every example which suggests **hom or lah,** and it should explain the absence of the bauble from the Glyph D and "arrival" verbs. The issue is beyond the scope of this paper. Relevant to all three common forms is a compilation (Schele n,d.) of all recorded occurrences of Glyph D which suggests that the three are equivalent and represent a count from first sighting after conjunction; thus "arrived" would be an appropriate gloss for them. The phonetic value of the T683a 'moon sign" may relate to its value as "twenty". An **u(h)** "moon" "20-day month" reading may be justified for it, which would also yield "arrive'; hul "arrive' may be realized as'ul. The Aztecs used the same word (meztli) for "moon" and "20-day month". Grube (personal communication, March 1990) has observed that the Glyph D "moon sign" verb has an eye-like motif where the Glyph A form has a single large circlet; he has also found other contexts supportive of an **u(h)** value for the form with the "eye" (ut in Cholan). GO BACK

14. One of these is the spelling **hu-chi**: huch: "conch* mentioned in note *3 above.
GO BACK

15. Among those which are encouraging is a TI1(?)4.45.24 verbal sequence which appears on Madrid 40a, this may read **u-hu-li:1 ma-tan-na: u hul matan** "he hunts (the) gift/boon. The scene shows a hunter grabbing a deer from behind. Villacorta's comment:- "an unarmed person has taken quarry in the hunt and he carries it furtively. hul (*JVC) in Yucatec is "hunt with lance or bow" (BV:242); in Cholan it is generic "hunt" (Wisdom, 1950.473). The same verb appears six times on Madrid 107c, but there

are the scenes are ambiguous (gods walk with staffs), and the prefix looks more like TI 14 **xa** than T1 1. The object is ukab -"his bee(s)" -. The first of the two verbs following the DN on Copán Altar F, may read **tu 4 tun, 1 katun hulel** "on his 24 tun arrive". The second verb may read **hok'-hi-(i) ti hutel** -"he took office as the as arrive"??. Here the **-t-el** appears to be Cholan & inchoative or positional -tel, which is problematic. (See note *11). GO BACK

16. The rare **ma** superfix might be explained as a *ma(l)/*mA(l)) middle voice marker, this is no longer productive in Cholan and Yucatecan but survives on "change of state" words like "melt", "coagulate", "humectate", "soften", and so forth. Given the "fuzzy intransitively" of hoy, a middlevoice marker would be no surprise. It would have to be read last, as *huy-ma "debuted". *GO BACK*

17. A quick scan of the first thirty pages of the Spanish-Maya section of the Cordemex Dictionary (Barrera-Vasquez, 1980) yielded mol (p. 528) "gather together; people or many things" mul (p. 538) "gather in a pile", mulchahal "gather in a group (people)", hech'(p. 194): hich'(p.206) 'tie in a knot"; cheltal (p. 89): chiltal (p.99) "lie down", hob-yah kah (p. 215). hub (p. 238) "rabble rouse"; p'ok (p. 697): p'uk (p. 700) "bent over". The pair hom (p. 229) "trumpet". hub (p.238) conch (trumpet)": has been noted earlier Each pair represents one Yucatecan and one Cholan root; in several cases the Cholan root seems the most productive. GO BACK

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See Editor's note next page.

File no. K5466

Editor's Note.

Vase K5466 proves MacLeod correct in her reading of God N as **HOY**. The two glyphs in cartouches comprise a PSS with the words "debut" and "vessel". An extremely short dedication.

File No. K1550

BRIAN STROSS AND JUSTIN KERR

A beautiful and important Classic Maya vessel, No. 1550, published in The Maya Vase Book, Vol. 1, depicts some part of what clearly must be an enema ritual, which may be viewed as an aspect of the Maya vision quest. The individual administering the clyster is garbed in a style different from what we have come to expecting Maya iconography, and the facial features are unexpected as well. The physiognomy of this, person, like that of the other assistant appears, admittedly on a subjective basis, to be non-Mayan. The clyster held in both hands of this individual has a characteristic shape motivating a new interpretation for at least one element of the Maya glyphic script; and the three huge jugs depicted, apparently filled with whatever is being administered in the enema ritual, have their own secrets to be investigated. The following is an attempt to explore some of the implications of this scene for our understanding of the Classic Maya ritual vision quest

IMPLICATIONS OF THE DISPENSING ASSISTANT

The individual receiving the enema is clearly the central figure in the scene on the vessel. (Figure 1) Wearing only a loincloth , a neck sash and a headdress. This male is not distinctive enough in garb to suggest non-Mayan origins, although his face might be considered somewhat unusual and the emanations (like the speech scrolls of Highland Mexican iconography) issuing from his mouth are rare in Maya iconography.

The person on the right who is administering the enema, has a non-Mayan face and an unusual costume. Figure 2). It is a rather substantial looking costume consisting of a fringed skirt with a fringed front, a triple-belted fringed hip cloth, and what might be a fringed rounded *quechquemitl* (cf. Anawalt 1981:130-131). note 1 It appears to be a costume adapted to a cooler climate than that of the Maya lowlands. It may be a non-Mayan costume, and its wearer is possibly a woman. In most enema ritual scenes women are

Figure 2. 7he woman from vase no.1550

Figure 3. Jaina FIgurine depicting female with Headdress.(after Sayer 1985:38)

present. However the person's headdress closely resembles female's headdress found on a Late Classic Maya pottery figurine from Jaina (Figure 3).

A third person in the scene, another assistant in the enema ritual, is using what appears to be a half gourd to dip out enema substance from a large vessel in front of him (Figure 4); a vessel recalling Mesoamerican honey jars (Figure 5). A similar gourd dipper is atop the vessel in Figure 6, probably used to fill the clyster through the large hole. The person is clearly a male. The distinctive headdress is a characteristic feature recognized on other enema ritual scenes by Barrera and Taube (1987: figure 12) who remark on similarities to the headdress of the Classic Maya version of God N (cf. Figure 6).

That one or more of the persons involved may be non-Mayan, suggests that the Mayas could have derived at least some of their ritually important materials, including the contents of the enema bag,

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FIgure 4 Jug *in front of male assistant from vase no. 1550*

from outside the Maya area, either from trading merchants or from representatives of organized non Mayan cultural centers. Trading merchants seems a more likely possibility and is highly significant. It means at the very least the Mayas would have thought (correctly or not) that some non-Mayan society had control over superior hallucinogens, or else had superior control over their administration and efficacy. Such a notion of neighbors having more powerful ritual substances or magic is not uncommon in the Americas, and has been discussed in the literature (cf. e.g. Heisler 1988; Stross 1977; Thussig 1987). lconographic evidence for Mayan ritual use of enemas is for the most part limited to the late Classic period (Barrera and Taube 1987:13), and this suggests also in a small way that the Maya may have been introduced to the practice by non-Mayan neighbors.

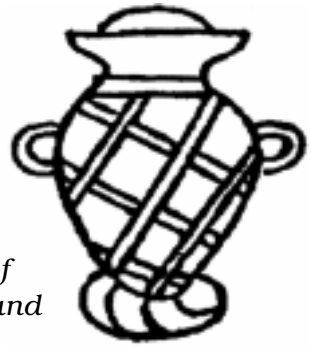


FIgure 5 *Aztec jar of honey on rodete stand after Peterson 1959.171)*

TRANSPORT OF THE ENEMA SUBSTANCE

According to the depiction on this and other vessels the enema substance was apparently kept in large narrow-necked wide-mouthed jars, note 2 secured and transported two at a time on a backrack (a kind of pack frame used for transport by merchants). Similar backracks can be found in use by Mayans of today (Figure 7), and are depleted in Aztec codices as well (Figure 8). Except for the backrack, it might have been assumed that the substance was mixed in and dispensed from stationary containers.

The enema substance may have been transported in liquid form, given the large size of the jar. This could be the case if some of the ingredients included fermentation based alcohol. It is also conceiv-

Figure 6. *Classic Maya vase with enema paraphernalia (after Barrera and Taube 1987: Fig. 12e)*

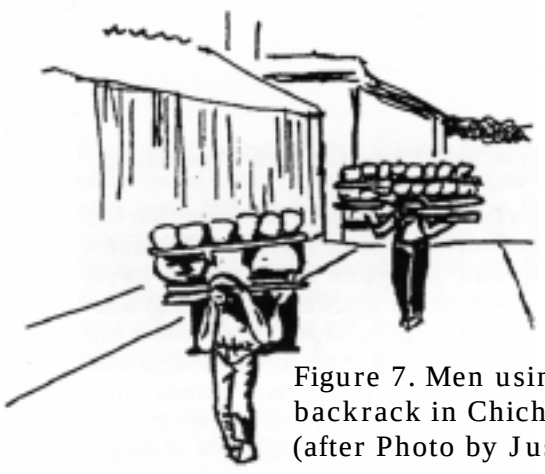


Figure 7. Men using the backrack in Chichicastenango (after Photo by Justin Kerr)

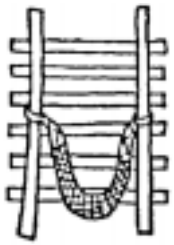


Figure 8. Backrack with tumpline from the Aztec Codex Matricula de Tributos (after Peterson 1959:171, Fig.47,13)

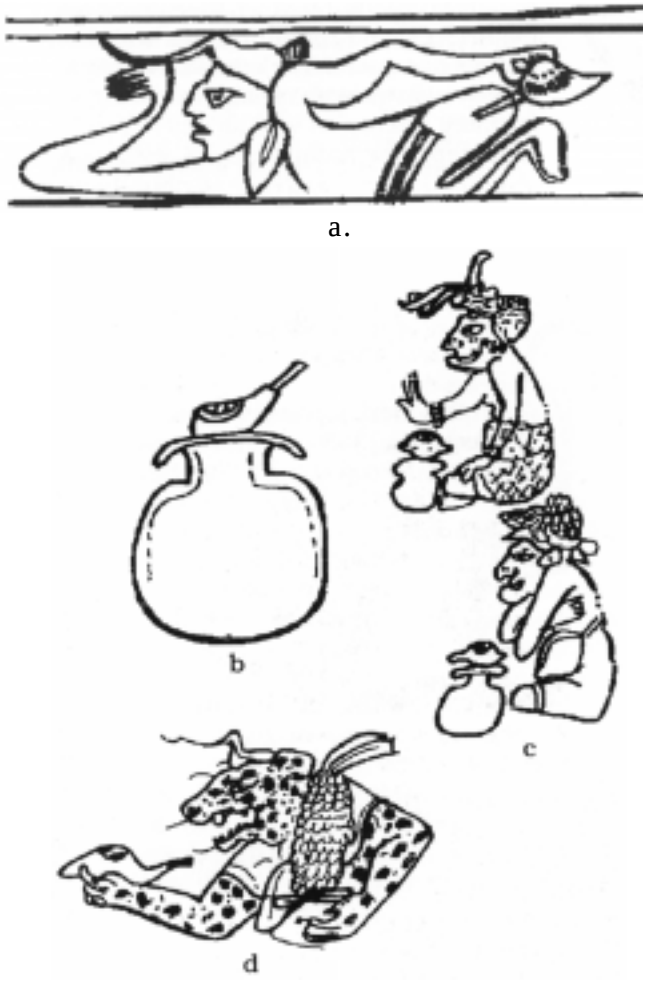


Figure 9. *Examples of enema bags or clyters in scenes on Maya vessels. Kerr file nos. a.1897; b.1381; c.530; d. 1973*

able that the heavy jar was transported empty of fluid, and that the liquid was mixed on the spot. Whether or not it held a fermented liquid such as mead, it could have been fortified with one or more of the many possible hallucinogens that can be found even today within the borders of Mesoamerica. Regardless of the precise ingredients of the Maya enema, a topic to be discussed below, the clyster is usually associated with large ceramic vessels, frequently having narrow necks, in Classic Maya pottery depictions of the enema ritual. It Is apparently in such large ceramic vessels that the enema substance was brewed and/or transported.

THE OBSIDIAN BLOODLETTER AND CLYSTER AS GENITAL REPRESENTATIONS

The clyster on this vessel looks less like a gourd than in other depictions, (Figure 9a), and it has a somewhat longer pointed end but it Is likely nonetheless to be a gourd, a conclusion based on its shape as well as depictions of similarly shaped ceramic vessels occurring in Non-Mayan regions of Mesoamerica Barrera and Taube (1987). (Figure 9b,c,d,)

In this form, it resembles some weaving picks found in contemporary Mesoamerica Figure 10), recalling that in Yucatec-Maya *halab* means 'clyster, enema syringe-while *halab-te? is 'loom* (for weaving)' the root in both cases is ***hal*** Yucatec ***hal*** can mean "dip out from an olla"

In its general form, the "fill-up hole" included, the clyster also resembles some presumed bloodletting instruments that have been found in Maya contexts, including one composed of flint with a hole in the middle (Figure 11). Of course the enema bag. as depicted on the vessel discussed here is much larger than the bloodletter it resembles.

Maya clysters, in general, including the one on this vase, are similar in form to the Maya glyph (T712) referred to in the literature as the "obsidian bloodletter (Fig-

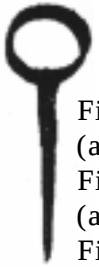
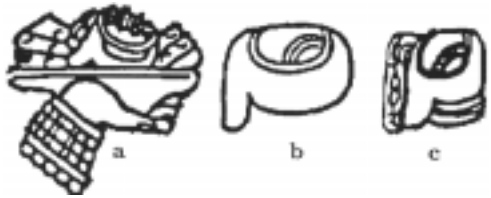


Figure 10 Mixtec weaving pick (after Cordry 1968:45)
Figure 11 Maya blood-letter (after photo F.H. Stross)
Figure 12 3 examples of T712
a. Yaxchilan Lintel b. Thompson Catalog c. Palenque Tablet of the Cross



ure 12). The formal parallels extend to the hole in the clyster, which has an analogue in the "mirror glyph" (some times an "akbal glyph") infixed on T712. This prompts the proposal that the "obsidian bloodletter" glyph represents a depiction of the clyster, the pointed end being bent over to the side in deference to the squared form of the Maya glyph blocks.

The clyster itself, we suggest, takes on the form and symbolism of male genitals, thus representing the symbolic means, through ophidian visions, by which the ruler" gives (re)birth to" and communicates with the lineage ancestors. The enema technique in the vision quest Is capable of setting off far more intense as well as more specifically reptilian hallucinations with less physical danger than those attributable to
simple blood loss through bloodletting.

Objection may be made however, that the "obsidian blood letter glyph" (T712) cannot represent a clyster because the glyph occurs both in known bloodletting contexts--contexts in which triple knots are found among other diagnostics--and also where it clearly refers to a parent-child link (presumably through blood). At first sight this seems to indicate a stronger connection with blood than with a clyster. Glyphic representation of a parent-child link by means of T712 is evidence that the *obsidian bloodletter" glyph may derive first and foremost from a depiction of male genitals, which represent the source and substance of the actual "seed" of lineage that is so directly a cause and consequence of lineage; lineage being what we refer to metaphorically as the "blood line". Therefore it is not really blood but rather semen that creates the parent-child link, even though the link is often measured by and referenced to blood.

In answer to the iconographic linkage between bloodletting and T712, suggesting at first that T712 is a "bloodletter" rather than a clyster containing some hallucinogen, it is through the verbal metaphor of "blood line", made visible in depictions of the undulating (blood) serpent, sometimes cosmologically indistinguishable from the world tree marked by the mirror-eyed loincloth head deity. Since both spring in iconography and mythic thought from the loins of the Maya ruler, we can most clearly see one of the most significant aspects of the "vision serpent".

This vision serpent represents the "blood line", the "blood of lineage". The ancestors "scale" the serpent (to and from their abode in the sky afterworld/underworld), just as the Chol boy who became the sun, "scaled" the multi-noded bamboo pole up into the sky (Whittaker and Warkentin 1965:43), note 3 and just as we imagine would a Maya lord would "scale" the vision serpent / "world tree" to commune with--to figuratively become--the sun, evoking an image of himself as ancestor in the royal lineage, responsible for protecting and nourishing all mankind (cf. Schele and Miller 1986).

It Is clear that evocation of the vision serpent is of vital importance in relation to the T712 glyph. It will also be made clear below that certain hallucinogens, such as Datura can evoke the vision serpent with more surety than the letting of blood. which itself might easily be linked metaphorically with the vision serpent .note 4 There is also a linguistic linkage between bloodletting' and a hallucinogen that can create visions of serpents. Yucatec Maya, for example, has the word *tok'* referring to both 'flint' and 'bloodletting' (Barrera Vasquez 1980:805). and another word very similar to it that refers to the potent producer of serpent visions, a hallucinogen known as Datura or Jimson weed *(tohk'u'(lit."true* god")Y (Roys 1976:285). Another Yucatec word for this plant, almost as revealing, is *chelis* k'u' (1it."rainbow god") (Barrera Vasquez 1980:89).

Thus one can explain the T712 glyph, not as a depiction of a flint or obsidian penis perforator (indeed, none have been found in the shape of T712), but rather as a geni-

tal shaped clyster or enema bag for administering hallucinogens that evoke the vision serpent and give birth to the ancestors. In this latter function it could be seen as inextricably tied to the notion of bloodletting. This would be the case if, for example, the enema ritual involved hallucinogens that would facilitate bloodletting. In other words, if Maya bloodletting was usually accomplished with the aid of some kind of hallucinogens, then the enema bag would naturally be associated with the bloodletting, and a glyphic or iconographic depiction of the enema bag would in like manner be associated with blood and bloodletting. It is by means of this ancillary hypothesis, then, that we seek to explain T712 as a genitally symbolic enema bag and not (only) as an "obsidian bloodletter". However. the occurrence of the T712 icon inclose association with stingray spines, and also in scenes where no enema vessels appear, demands some explanation.

A plausible, if tentative explanation is that the "mirror' and the "akbal" infixes that substitute for one another in T712 determined the interpretation that the Maya gave this glyph and icon. If so, one would expect the "akbal" glyph to signal obsidian, because *ak'bal* 'night' refers to darkness, and black is the color of most obsidian. The "mirror" might signal the clyster, particularly if some of the liquid in it was alcoholic, because the Chol word *lembal* 'rum, alcohol' and *lem* 'to lick' drink alcohol' represent a root that has similar sounding cognates, in other Mayan languages meaning mirror. The specific ingredients of the enema bag are important to an understanding of how the "mirror" and "akbal" infixes in T712 might have been interpreted by the Maya. note 5

There are several reasons for supposing that the "obsidian bloodletter" (or "obsidian core" that T712 is sometimes identified as) is actually a clyster or an enema bag, itself symbolic of male genitals. First, obsidian "cores" or "bloodletters" of the shape of T712 aren't found in caches or burials, or anywhere in Maya archaeology, so far as can be determined. Second, bloodletting, when done in sufficient quantities to see visions is very dangerous to one's health. Any actual bloodletting done by Maya rulers in connection with visions must have been only nominal and largely symbolic. The contents of the clyster would not only have achieved visions at a lesser physical health cost; it would have been more likely to ensure the desired serpent visions. The enema bag, symbolizing genitals, would be an even better and more direct indicator of relationship than blood as symbolized by a bloodletter, thus explaining the use of T712 in relationship glyph collocations in terms that are not strictly bloodletting. Parenthetically, it could be mentioned that the enema bag, because it symbolized male genitals, could be seen to explain some of the accusations made by the Spanish conquerors that the Indians were prone to committing sodomy.

THE ENEMA INGREDIENTS

Speculations have been made as to the nature of the enema ingredients. Balche, (mead fermented with bark of the *Lonchocarpus* tree) as used today by the Lacandon and some Yucatec Maya, has been suggested, as has pulque, fermented juice from the *maguey* (an Agave related to the 'century plant"). This latter suggestion is supported somewhat by the "Manik hand" glyph sometimes found on the vessels associated with clysters in Maya iconography (cf. Figure *13).* The phonetic value of the glyph T671 (Manik hand) is **chi**, which is homophonous with a Cholan and Tzeltalan word for the *maguey* and related agave plants and the fermented

Figure 13. *Manik hand on enema jug. (after Barrera and Taube 1987, Figure 2)*

beverages which are made from these plants. However, words for 'sweet' (chi?) and **'maguey'** (*chi*) represent separate roots, though near homophones, and Yucatec cognates to these words demonstrate clearly that the word for intoxicating beverage derives from the word for 'sweet' rather than from maguey.

Identifications of alcohol, whatever the source, do not preclude the addition of some hallucinogenic alkaloids. Fortification of fermented beverages by hallucinogenic substance is documented even in present day Mesoamerica.

The modem Tarahumara, for example, add Datura *inoxia* or *tikuwari* to *tesguino* (a fermented drink prepared from sprouted maize) to strengthen its effects, and the roots, leaves, and seeds of this species are the basis of a beverage employed ceremonially to induce visual hallucinations, which the medicine man values in diagnosing disease" (Schultes 1972:47).

This documentation of Datura as an ingredient of fermented drinks in Mesoamerica does not stand alone. There is another more potent reason to suspect that Datura was an important active ingredient of the Maya enema substance. This lies in the fact that *some hallucinogens regularly elicit visions of snakes*. Maya rulership iconography frequently depicts a serpent known in the literature as the "vision serpent that rears up and addresses itself to the ruler or the vision seeker (Figure 14), so a hallucinogen that could reliably call up serpents in the vision seeker's quest would likely be much sought after. Nahuatl *toloatzin* (*Datura meteloides)* was used in many parts of central and northern Mexico (including the Huastec Mayans). It can be administered effectively in enema form, it seems to have the effect of killing pain, and it creates hallucinations. The most Interesting part of Datura is that the hallucinations it calls forth seem invariably to involve serpents, as attested to by one of the authors and many ethnographic reports.

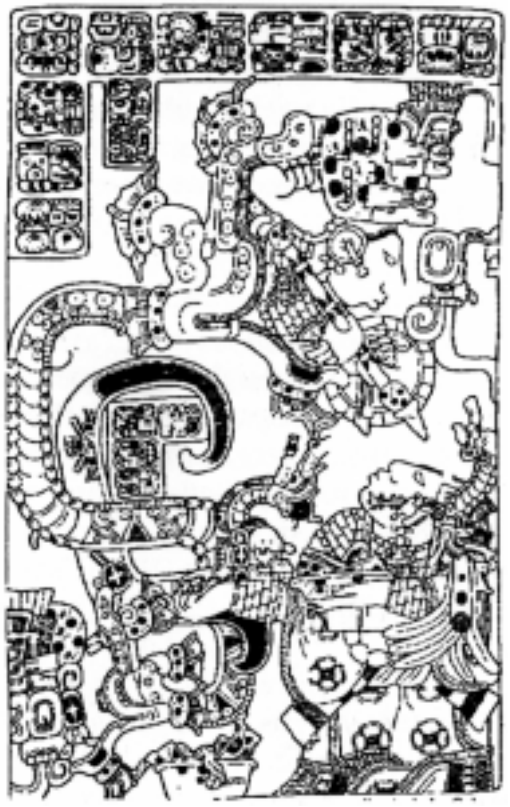


Figure 14. Yaxchilan Lintel 25

There are records of other hallucinogenic substances that have been described as creating specific animals in visions. Among these is, the South American hallucinatory drink yage' (or ayahuasca. *Banisteriopsis)*, about which it has been said that "the visions most commonly reported for all tribes are of snakes, generally poisonous varieties and the anaconda, and of jaguars and other dangerous forest felines" (Hamer 1973:160).

> "Among the Jivaro, the most typi
> cal apparitions seen on the vision
> quest by persons taking the *Ban
> tsteriopsis* drink or Datura are
> pairs of giant anacondas or
> ch roll over and over
> through the forest as they fight be
> tween themselves ... The shamans
> under the influence of ayatutasca,
> see snakes apparently at least as
> often as any other single class of
> beings ... Sometimes they also see
> caymans" (Hamer 1973:160- 1).

Of the two substances mentioned that elicit serpent visions, is, according to published reports, exclusively South American. Although not impossible, long distance transport of *Banisteriopsis* to Mesoamerica from Colombia is still too long a distance to be contemplated without other kinds of evidence. Datura, however, is found in Middle America and North America as well as South America and the Caribbean, where it is widely used in puberty rituals. It may be noted that both substances, *Banisterlopsis* and Datura can be administered in enema form, by which means the accompanying nausea may be substantially reduced.

Clyster use to administer hallucinogenic enemas is documented for Mesoamerica as well as elsewhere. Emboden mentions a report that "Hutchol shamans take an infusion of peyote rectally by the use of a deer bladder and a femur bone" (1979:85). he continues:

> "Clysters have been used in diverse areas of the world for ritual intoxication involving *Datura, Nicotiana, Banisteriopsis*, and *Agave.* The reason usually is to avoid the physical discomfort of ingesting material that is basically unpleasant. Among the Algonquins the protracted *Datura* intoxication was more easily achieved by maintaining the state through enemas. It would be very difficult to get a person in a trance state to drink without aspiration or other problems, whereas the clyster presents a simple solution" (1979:85-6).

There is evidence of relatively recent Huastec Mayan use of *Datura.* and Colonial period use of the enema Alcorn, for example,

> collected a few reports of the hallucinogenic use of *Datura candida*, *Datura stramontium,* and *Solandra nitida,* Wasson (1980), in his search for evidence of mushroom use in Mesoamerica, uncovered an 18th century document published in Montejano y Aguinaga (1954) that describes a Teenek vision-seeking ritual apparently employing mushrooms. Another more widely publicized historical document (Anonymous Conqueror, 1917) describes Teenek use of "wine* enemas. The actual ingredients of this "wine" are unknown although some speculate that it contained tobacco (Robicsek, 1978), it was simply pulque or it was pulque fortified with morning glory seeds or other hallucinogenic materials (Furst 1976) (Alcorn 1984:320).

Furst and Coe have identified and reported on Maya ritual use of enemas presumably containing hallucinogens (1976) specifically based on painted depictions found on Classic Maya pottery vessels of such ritual use of enemas.note 6 Our own best guess of these authors is that Datura is likely to be one of the most important ingredients in at least some of the Maya enema rituals because of its strong connection with serpent visions.

THE HOWL

Another striking feature of the vessel, rare in Maya iconography, is what appears to be "speech scrolls", or perhaps "howl sounds" (cf. Bricker 1987), emerging gracefully upward from the upturned mouth of the reclining figure receiving the enema.

Clearly connected with the ritual use of hallucinogens in Mesoamerica is rhythmic chanting, singing, and even howling note 7 Not only is this vividly portrayed on Tarascan masks, modem and ancient, it is found as well on masks and figures from Guerrero (Figure 16). Significantly, when we look more closely, we can find

Figure 16. *Clay mask from Guerrero (after photo by J. Kerr)*

the howl in Mayan iconography as well.

Bricker has pointed out that Landa's second U is only rarely found in Maya codices or Classic inscriptions, and even so, it seems never to have had a grammatical function like that of Landa's first U. From this and other evidence she proposes that It represented the syllable **hu** rather than the small **u** in the Maya script referring to its presence emerging from a dogs mouth on Dresden 13 and 21. she suggests that although its most obvious interpretation is as "howl scroll" in analogy to the "speech scrolls" of Central Mexican codices, it may instead have been intended as "a phonetic rendering of huuuu, the sound of a howling dog` (Bricker 1987:17). One may note that both of these interpretations of the "howl scroll" may apply simultaneously, given the Maya scribal propensity for multiple functioning of glyphic elements (cf. Stross 1988). In this context the apparent "howl scroll" depicted on the enema vessel under consideration might be recalled.

To this might be added the important fact that Landa's second U, what we might call the "howl scroll"--though Thompson refers to it with some justification as the "lock of hair of the moon goddess". or the "Caban curl"--is found in Maya codical iconography not only as a forehead ornament of the moon goddess, but also as a

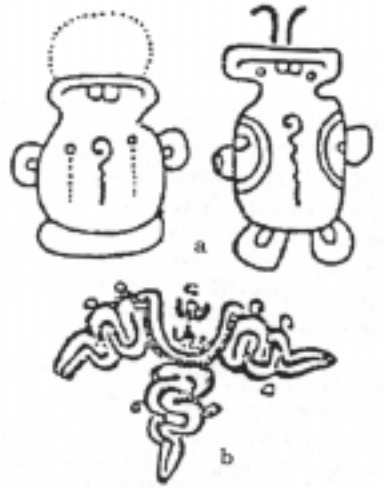


FIgure 17. *The "Caban curl"on Maya jugs & (after Barrem and Taube 1987, Fig.15a, b)*
b. (afterAndrews 1958, plate 3)

designator on the bodies of vessels that are suspected to contain some alcoholic drink (Figure 17 a). Early Classic Maya vessels have been found with clearly related symbols (Figure 17 b). One of the meanings of *kab* in Yucatec is honey from which fermented liquors are made. Seler has discussed the addition of "narcotics" to alcohol in Mesoamerica and the use of the "Caban curl" to indicate such ingredients (1904).

Additionally found on the lips of many of these vessels in the Maya codices is another of Landa's graphemes, his first U, as noted and discussed by Gates, 1978:195-6 (Figure 18). This is analogous to the generally U shaped (with horns) "moon sign" (cf. Western Mayan

Figure 18. *Landa's first U (cf. Gates 1978:195-6)*

and Yucatecan uh "moon") identifying jars and cups of pulque in Central Mexican codices (Figure 19; cf. Figure 17 b). The moon is strongly associated with inebriants and antisocial behavior in Mesoamerica and elsewhere (cf. our own words 'looney', 'lunacy').

Because pulque is made from the maguey plant, let us note as significant the sound of the Proto-Zoquean word for 'maguey', *"oh.* Totontepec Mixe *OO?y* 'jar, arched', which is similar sounding, may reflect a Mixean cognate where the meaning has changed through synecdoche. Figure 20, a Guerrero vessel in the form of an individual giving himself an enema may be con- sidered in the light of such meanings attention should also be directed at the pursed mouth, seemingly pursed mouth during a howl Although the sound

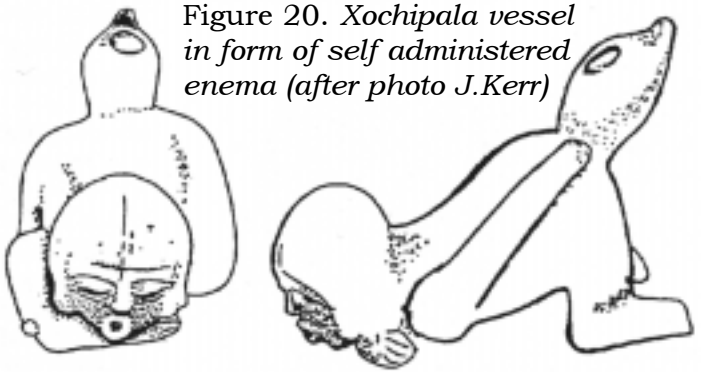


Figure 20. *Xochipala vessel in form of self administered enema (after photo J.Kerr)*

is completely different, let us here note for comparison below that Yucatec *ak* 'arched; turtle, peccary' shares with Mixe *OO?y* 'jar, arched' and the meaning 'arched'.note 8

There is linguistic evidence also for Mayan recognition of the "cosmic howl" and for its connection to some liquid inebriant, and also the presiding deity thereof. In Colonial Yucatec the "God of Inebriating Beverage" (referred to in the vocabulary sources simply as vino is known as *akan* ('vino y dios del vino (Swadesh et al 1970:33). A homophonous Yucatec word *akan* means 'to howl, moan, bellow'. Significantly *ak* a root that is sonically identical to the root in both of the above words for 'howl' and '(God of) Inebriant', is the word in Yucatec not only for 'arched', but also for both the 'turtle' (whose shell is rubbed to produce a moaning sound according to Landa), and for the peccary ("wild pig", jabali, javalina, which due to its "drumming sound" is described as having a drum on his back" by Mayan informants, and which is named in Mixe-Zoquean languages with descriptive terms for "throwing oneself about"). Numerous Mayan languages record some part of this apparent linguistic and symbolic relationship between the turtle and the wild pig and the howl or groan. note 9 There are reasons for suspecting relationships between these animals and the moon, which is so clearly related in Mesoamerica to drunkenness and to the maguey plant.

Emboden discusses the role of sound and sound production in the ritual use of hallucinogens, by Mazatecs of Oaxaca. note 10 "Chanting to the saints of the church and the incorporation of litanies are undoubtedly post-Christian elements in Mazatec ritual. It is difficult to separate out those ritual and musical elements that are authentic. The beating of arms against the rib cage and thighs as well as the clapping of hands during the ceremony establish a music over which chanting and singing are heard (Emboden 1979:91-2) note 11

CONCLUSION

We can assume then, that the cosmic howl is related to some form of inebriant and that its sound Is dominantly either uUu or ooo (sounds related to the moon in Mayan and Mixe-Zoquean languages), and of considerable importance in Mesoamerica. Furthermore, iconography on the vessel discussed here allows for inferences that non-Mayans may have played a role in the acquisition, trade, and administration of some hallucinogenic inebriant, and that the inebriant is tied to the bloodletting complex in such a way that it may have made much of the *bloodletting' purely symbolic rather than the means to achieve rapture In the vision quest, or it might have served an additional function of deadening senses to the pain of bloodletting by self mutilation. Datura is identified here as a likely primary ingredient of the enema substance because of its effects and known use in enemas and vision quests. Finally, a specific suggested identification was made of the Maya glyph T712 as a depiction of a (gourd) clyster and genital symbol rather than an obsidian bloodletter or obsidian core.

NOTES

l. *Although the huipil unsewn under the arms, resembles the upper garment worn by this indi- vidual and con be found in the Mayan region today (Barbara Samuelson, personal communication 1988) Anawalt has concluded that the huipil is a Post-conquest introduction to the Maya area from across the Isthmus of Tehuantepec (1 981:205). Barbara Kerr first brought to our attention the fact that this person is possibly a female.*
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2. Justin Kerr postulates that the reason for a restricted neck on the enema pot was that in boiling or reducing a potion, a vessel having a restricted neck would not allow the foam produced to boil over the top.

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3. *It is known that an intestinal "serpent" separates mouth from anus in humans and animals, and it is through both these orifices that hallucinogenic substances are administered. One sees an analogue in the Maya vision serpent and in the serpent bar scepter which has a head (and a mouth) on both ends. Maya recognition of this symbolic similarity between mouth and anus is also found in Chol stories of a dog whose head was torn off and put on the other end* so *that he became a snake Whittaker ond Warkentin 1965:51 54). We find parallel symbolism in the Tzeltal story of the dog whose mouth and anus were reversed when the dog talked, and said more than it should have, and in Mixe* tales *of the monkey suffering the same fate for similar reasons (Stross 1982:86).*
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4. *Maya Vases show a series of abstractions culminating in a version of Datura and the fart (howl) symbol (Kerr 1989:5,6)*
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5. The "akbal" glyph referring by its name to "night", and implying the "night house of the underworld", is a marking that might have been used in Maya iconography to reference the use of hallucinogens as well as bloodletting instruments.
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6. Some vases illustrating enema use may be illustrated in The Maya Vase Books:
Volume 1 - K530,K774, K927,K956,1397, K1381, 1550, K1563, K1650, K1890, K1897, K1900, K1973.
Volume 2 - K1973, K2669, K2980.
Volume 3 - K2980, K3035, K3264, K3310, K3395.
Volume 4 - K4605, K4683, K5011.
Volume 5 - K5025, K65067, K5125, K5172, K5383, K5611.
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7. Justin Kerr recalls asking a Tarascan informant in Michoacan, about the meaning of a modern mask with the mouth poked out in the shape of a donut (Figure 15). He was told that it portrays the gut-wrenching howl, of one experiencing hallucinatory ecstasy: a harmonic ulultion.
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Figure 15. *Tarascan Mask with mouthpoked out in pronouced howl shape (qfter Cordry 1980:239)*

*8. In View of the apparent significance of the sound of the cosmic howl, and its possible relationship to a shamanic spiritual journey to "hell and back" we can reconstruct prot-Mixe-Zoquean (i.e. Olmec) *oy 'to go and return, probably related to the "arched" meaning noted* here. *It maybe significant also that the horizontal "bracket sign" (La Mojarra Stela I), tentatively identifiable as an 'ending' sign by Winfteld (1988.20). not only resembles the terrestrial panel" identifiable. at Izapa and in Olmec iconography* (cf. *Stross 1986; and* cf. *the Mixe day name 'Uh Earth' Miller 1956:60), it closely resembles Landa's first* u, *related symbolically to the Moon, which in Mesoamerica is related symbolically to the state of drunkenness. It is not difficult to relate the earth to the moon. Most peoples of the world have recognized that the one influences the other, and for the Maya specifically, the Moongoddess was also an Earth goddess.*
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9- The Maya God N (Pawatun)[cf. Stross 1987] an "Atlantean" god of the underworld who can be portrayed in some contexts as a dwarf, and in some Maya depictions wearing a turtle shell on his back recalls the fact that dwarfs and turtles are linguistically related in Yucatec. ***ak*** *means*

both "dwarf" and "peccary", as well as "turtle" (Barrera Vasquez 1908.4). One reaches the underworld abode of God N by means of caves, so it is not be surprising that Yucatec also includes the root ***ak*** *in* **aktun**, *meaning "cave or house of stone"* cueva, casa de piedra*' (Swadesh et at 1970.33, Barrera Vasquez 1980.5).*
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10. Barbara MacLeod is more specific about the role of sound production in ritual use of hallucinogens with respect to an acquaintance who ingested some appropriate quantity of Sahria divino rum. *This person in, the process of achieving an alternative state of reality, became disoriented and uncomfortable with the jumbled hallucinations that were attending this state. The Mazatec shaman who was with him "told him to sing to release a cry." When he did as he was told MacLeod's friend found that he became centered; the hallucinations became more ordered and comfortable. The singing and crying out had apparently produced this new and better state~ as was understood by the shaman. (Barbara MacLeod, private communication)*
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11. A friend of one of the authors described a curing ceremony In which she participated with several others. All present began blowing on low pitched whistling vessels and in the process of the group's achievement of an almost continuous sound due to overlapping breaths, they all hyperventilated while hearing this sound they were producing. The sound became pervasive and the feeling off floating above a forest occurred. There was "movement without movement". The harmonic ululation had achieved some effect of altered consciousness without any hallucinogenic assistance.

Thanks are due to Barbara MacLeod and Barbara Kerr for their valuable comments on an earlier version of this paper.

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